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February, 1952

SOAP and Sanitary Chemicals

In this issue...

Detergent - sanitizers — just how good are they?

* * *

Aerosol insecticide fly and roach control

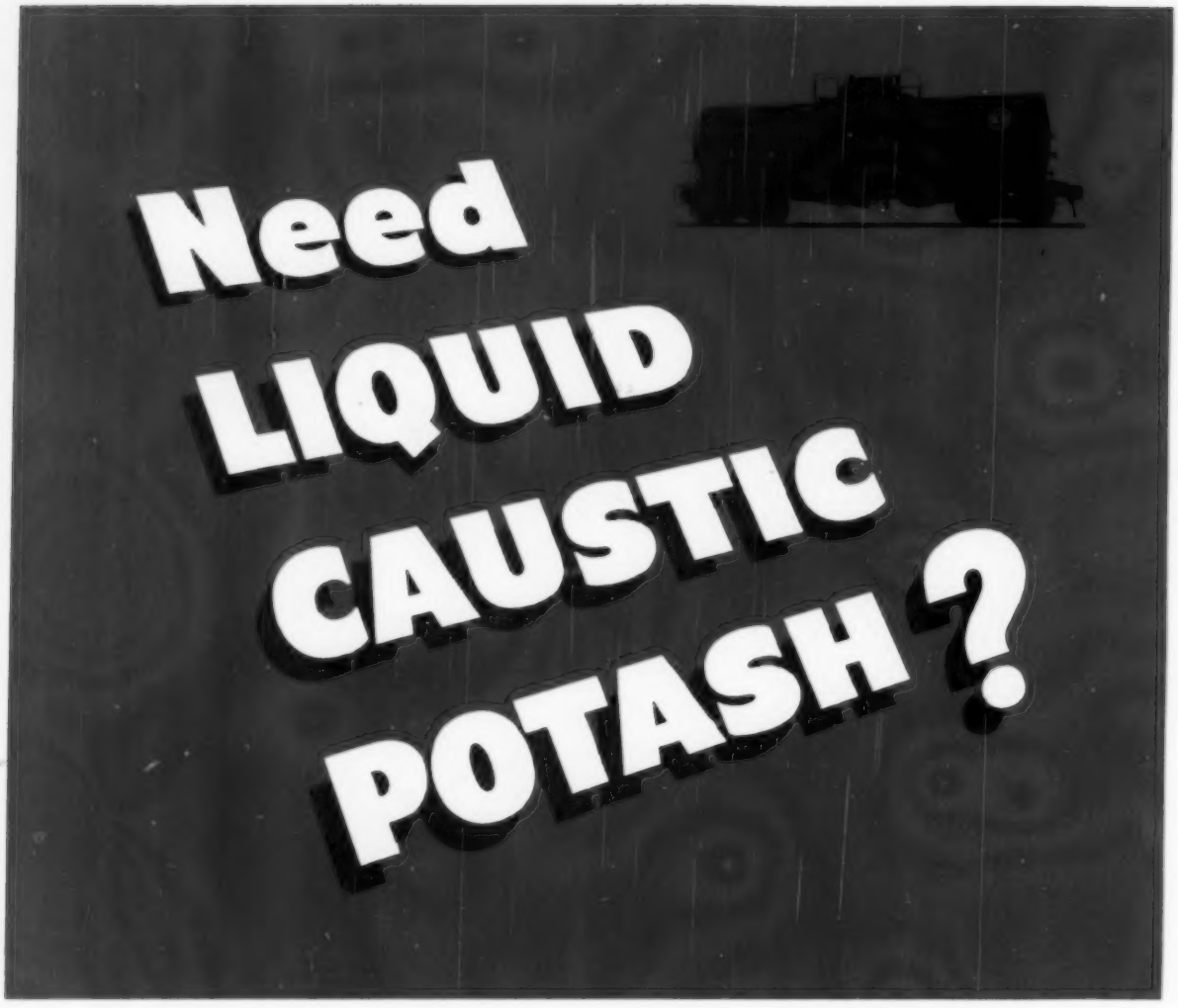
* * *

Household soap market trend in 1951 studied

* * *

Cleaning materials for new N. Y. bus terminal

Cover photo . . . New package design for "Felso" all-purpose synthetic detergent of Fels & Co., Philadelphia, makes package seem larger. Frank Gianninoto, New York, designed new package which features simpler, easy-to-read copy. Further information on page five.



Call SOLVAY First!

TRADE-MARK REG. U. S. PAT. OFF.

Count on SOLVAY for exceptional purity and low turbidity in LIQUID CAUSTIC POTASH. You can also count on Solvay for courteous sales help, prompt delivery service, and a special Technical Service thoroughly familiar with the applications and uses of Caustic Potash. Remember . . . when you need LIQUID CAUSTIC POTASH—call SOLVAY first!

SOLVAY
Alkalies Chemicals
Since 1881

Soda Ash · Caustic Soda · Caustic Potash · Chlorine · Potassium Carbonate
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Monochlorobenzene · Para-dichlorobenzene · Ortho-dichlorobenzene · Methanol
Ammonium Bicarbonate · Ammonium Chloride · Formaldehyde · Nytron

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ALLIED CHEMICAL & DYE CORPORATION
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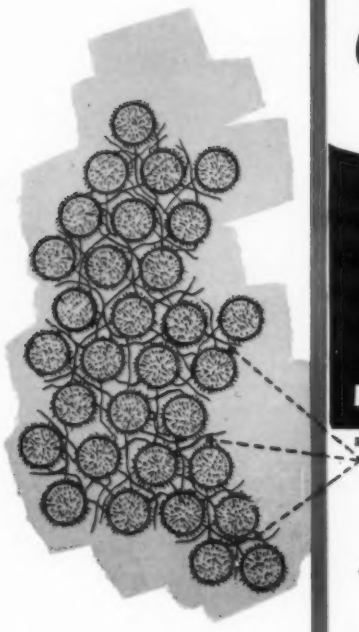
You are looking at the reasons for *Guaranteed* Uniform Quality . . . under Your brand.



Fuld's Millimicron Controlled* MILLI-MIKE

SELF-SHINING
FLOOR POLISH CONTAINING WAX

THIS drawing represents particles of MILLI-MIKE emulsion . . . magnified 2-million times!

Notice the space between *each* particle. This uniformity is very important in order to achieve MILLI-MIKE's guaranteed quality. Because Fuld Brothers has perfected a manufacturing process to control millimicron particle size, they are able to control the quality!

In MILLI-MIKE, the quality is tangible. There is no guessing or hoping it's there.

MILLIMICRON CONTROLLED MILLI-MIKE GIVES YOU

- Mirror-like Lustre
- Low Maintenance Cost
- High Wet-Traffic Resistance
- Scuff and Slip Resistance without tackiness!
- Long Wearing Smooth Film
- Easy Removability
- Guaranteed Uniform Quality

MILLI-MIKE PRODUCES *ALL* THIS . . . AT *ALL* TIMES.

*By controlling the millimicron size of the emulsion Fuld gives you Guaranteed Uniform Quality.

For details, a tailor-made sales presentation for your sales force, samples and MILLI-MIKE's advantageous price, wire, write or call . . . today.

FULD BROTHERS, INCORPORATED

MANUFACTURING CHEMISTS
Warehouses in Principal Cities

702-710 S. WOLFE ST., BALTIMORE 31, MD.
West Coast Plant: Los Angeles, Calif.

A GUIDE

TO WAX PRODUCTS PURCHASING FOR PRIVATE BRAND RESALE

An honest appraisal of floor wax products as we see it is offered to guide wax buyers who want the best quality money can buy..,

SELF POLISHING WAXES

Candy's Supreme (standard)
Candy's DeLuxe
Bright Beauty (standard)
Candy's No. 640
Candy's Supreme Special WR
CAND-DOX #CS
CAND-DOX #BB

Seven floor waxes that *are* all-around top quality for any given traffic condition. Each imparts the finest protection and beauty to floors for which they are best suited.

Bright Beauty FLOOR CLEANER

An outstanding material for removing even the heaviest wax film and dirt.... Brings neglected floors "back to normal." The *right* cleaning agent to insure the most efficient floor maintenance.

Bright Beauty CREAM FURNITURE POLISH

A cream furniture polish that spreads easily, polishes without excessive effort and imparts a deep impressive lustre. Too, it permits *repeated repolishing* with a dry cloth saving reapplication time and again; truly a very economical polish of very highest quality.

Bright Beauty PASTE WAX

A paste wax that is properly blended and refined from excellent quality solids and solvents that produce the best drying time and thorough evaporation. A wax that is easy to handle, having "creamy" consistency and stability throughout its stocking and usage period.

Bright Beauty LIQUID (spirit) PREPARED WAXES

Complete line of spirit dissolved waxes that meet a wide variety of demands for durability, color and types of usages. Each its own "Dry Cleaner," they keep a surface waxed with a superb protective coating necessary to many difficult surfaces such as certain floors (where adaptable), bars, wallpaper, etc.

Bright Beauty GLASS POLISH & CLEANER and SILVER POLISH

As a Glass Cleaner (pink color) it applies evenly with little effort, wipes off easily with negligible "powdering" and produces an undeniable "feel" of cleanness to glass that is actually true in fact. Different in color only as Silver polish, it imparts a highly desirable lustre to all silver *without* abrasion and can even correct the abuses of scratchy, "quick-polish" inferior products.

Bright Beauty DANCE FLOOR WAX

Basic advantages are freedom from "balling up," thus does not gather dirt and impregnate the floor with hard spots difficult to remove...also is free from dusty effects. Adds the protective quality to expensive ballroom floors that means more "floor-years" to users everywhere.

Bright Beauty Heavy Duty PASTE CLEANER

Really *cleans* and *scours* more effectively and quicker than most scouring powders. Depending on application, it can clean to perfection even painted walls to provide a suitable repainting surface. 100% active, free from excessive abrasive quality, it frees almost every surface from all forms of foreign matter to perfection.

1. BEAUTY AND DURABILITY

should be considered together. Initial appearance is important, but for a waxed surface to remain beautiful it must be durable. Durability depends not only on resistance to the abrasion of traffic, but even more so on resistance to the collection of dirt and to discoloring traffic marks. Durability is really measured by how long the waxed surface maintains a nice appearance before the necessity of complete removal and re-waxing.

2. ANTI SLIP

qualities are necessary in a good wax as a matter of safety underfoot. This important quality does not necessarily require the sacrifice of beauty and protection which are the foremost original reasons for the use of a wax. Look for the proper balance—a wax film which is not excessively slippery yet which is not tacky and does not excessively collect dirt.

3. WATER RESISTANCE

is important, particularly when considering the possibility of wet traffic and the necessity for frequent damp mopping for the purpose of removing surface dirt. Overdoing this quality means greater difficulty in applying multiple coats of wax and may seriously increase the difficulty in removal when complete cleaning and re-waxing is necessary. Water resistance is important, but so is the quality of removability.

4. SOLID CONTENT

when expressed in percentage is not nearly as important as the *quality* of the solid content. When considering good quality, 12% of solids answers most needs for good planned maintenance programs. Two applications of 12% will give better results than one of 18%. However, the more concentrated material is useful for some programs of maintenance and particularly on "washed-out" floors, etc. Over-waxing should be avoided so that periodic complete removal will not be too difficult.

5. CARNAUBA WAX

is still the most important basic ingredient in our floor waxes. When refined and compounded with other important ingredients and "KNOW HOW," it aids materially in producing the most important features of a good floor wax...ALL AROUND QUALITY OF PERFORMANCE.

● **ALL AVAILABLE FOR PRIVATE BRAND ONLY**
We do not compete with our jobbers for consumer sales. We sell only to distributors, except for experimental accounts in Chicago essential to research.

Wax Specialists for over 60 years

Candy & Company, Inc.

2515 W. 35th ST., CHICAGO

SOAP and Sanitary Chemicals

Volume XXVIII, No. 2 February, 1952

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THIS MONTH'S COVER

New package for "Felso" synthetic detergent of Fels & Co., Philadelphia, designed by Frank Gianninoto & Associates, New York industrial designer, makes package look much larger when displayed with competitive products. The modernized package design is based on a study of consumer reaction to the product and its packaging during the two years Felso has been marketed. Redesign results in high shelf visibility and easier recognition of the product. The old package was more formalized, carrying the connotation that the product might be primarily for fine fabrics.

New design is for housewife-shopper who does not take time to read. It tells her simply and easily that product washes clothes cleaner. Copy is further dramatized by larger use of white space. The traditional trade mark of Fels—the double fish-tail, is retained.

Obliquely horizontal stripes are printed in bright orange, making a good background for the trademark. Color scheme continues green and orange, but colors are brighter. Tall condensed type for Felso with its effect of exaggerated height and vertical effect makes package seem larger than it actually is.

FRANK J. REILLY, Editor

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MEMBER AUDIT BUREAU OF CIRCULATIONS

Subscription rates: U. S., $4.00 per year; Canadian, $5.00; Foreign, $6.00. Copy closing dates—22nd of month preceding month of issue for reading matter and 10th of month preceding month of issue for display advertising. Entered as second-class matter June 16, 1949, at the Post Office, New York, N. Y., under the act of March 3, 1879.

News of MONSANTO Chemicals

OF SPECIAL INTEREST TO FORMULATORS

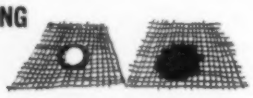
Aerial view of Monsanto's new elemental phosphorus plant as it takes shape on the 500-acre site near Soda Springs, Idaho. Office and service buildings as well as foundations for the initial electric furnace are nearing completion. Strip mining of phosphate deposits has begun to permit stockpiling prior to the start of operations planned for the latter part of 1952. The new electric furnace is the company's seventh.

WORK PROCEEDING RAPIDLY ON ADDED PHOSPHORUS CAPACITY IN IDAHO

Monsanto's construction of a large electrical furnace plant at Soda Springs, Idaho, is continuing on schedule... Elemental phosphorus of 99.9% purity to be produced here will travel by rail to Monsanto plants in Monsanto, Illinois; St. Louis, Missouri; and Trenton, Michigan; where it is converted into pure phosphoric acid and numerous phosphates serving hundreds of industries.

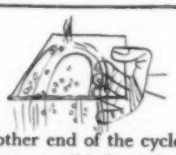
Already the world's largest producer of elemental phosphorus, this new Idaho capacity will enable Monsanto to extend a still more valuable service to formulators of detergent cleaning compounds . . . It will make available greater supplies of the many sodium phosphates which provide detergent and water-softening action so desirable in the numerous phases of industrial, commercial and household cleaning.

SPREADING



Spreading and rinsing are two very important properties of a detergent and wetting agent. Spreading gives quick action to the cleaning solution—causes it to go to work faster, over wider areas . . .

RINSING...



Rinsing, at the other end of the cycle, is the quality finally responsible for thorough cleaning, washing away all dislodged soil and dirt. Santomerse No. 1 possesses both spreading and rinsing power in abundance.

$$\frac{1+1}{2} = 1+$$

TSPP

Higher detergency from synergistic action

There are numerous places where the higher detergency effected through synergistic action affords important economies in industry cleaning and scouring.

Synergism is achieved by blending Santomerse No. 1 and Monsanto tetrasodium pyrophosphate with the result that their combined detergencies are higher than the average of the two when used separately; higher than the detergency of either. This effect is of particular consequence in many phases of textile processing.

Many uses for TSPP

Monsanto tetrasodium pyrophosphate is also widely used as a soap builder, household and industrial cleaner and detergent, in bleaching, in dye baths for putting certain types of dye in complete solution, in metal cleaning . . . For full information, send for Technical Bulletin No. P-24.

Water softening with STP

Monsanto sodium tripolyphosphate, in either granular or powder form, is water soluble—has excellent water-softening and detergent properties. It is used as a soap builder; eliminates scum and soap curds in hard water.

Like tetrasodium pyrophosphate, Monsanto sodium tripolyphosphate delivers a bonus in detergency through synergistic action resulting from its combination with Santomerse No. 1.

• • • • • • • •

WHERE DOES PHOSPHORUS COME FROM?

Phosphorus comes from the earth. Imbedded in rock, tiny skeletons of pin-point animals that have been dead millions of years form deposits that are rich in phosphates. These are excavated by Monsanto — converted in huge electric furnaces.

DETERGENT CLEANERS

Where they are used in metalworking plants

Some highly interesting information was recently developed by the publication IRON AGE and released in a report entitled "The Buying Influences Related to the Purchase of Metal Cleaners." This report is based on 400 replies received to a questionnaire sent to 2,000 metalworking plants employing 250 or more production workers.

Largest number of replies came from Machinery Manufacturers (123); next, Fabricated Metal Products (93); then Electrical Equipment (66); Transportation Equipment (57); Instruments (21); Metal Furniture (12); Miscellaneous, such as silverware, jewelry (28). Here's the score:

Of the 400 plants replying, 343 used detergent metal cleaners in their production operations—57 reported they were not using cleaners.

Of the 343 plants using detergent metal cleaners, 194 reported using them in washing machines, 263 in dip tanks (some plants used both methods).

There were 224 plants which reported the quantity of detergent metal cleaners used per year—*the total, 13,316,327 pounds.*

That's quite a market for detergent metal cleaners!

Santomerse No. 1 is an important ingredient in detergent cleaners.

WHO BUYS DETERGENT CLEANERS?

In the IRON AGE report just referred to, there is some interesting information as to who in metalworking plants actually specifies metal cleaners. There were 351 plants which answered the question: "Who decides which type of metal cleaner is to be used?"

Factory Managers and Superintendents (124) were most frequently mentioned—Master Mechanics (3) got the least mentions. Other titles—Process Engineers, Chemists and Metallurgists, Finishing Foremen, Industrial Engineers, Purchasing Agents, Finishing Superintendents, Chief Engineers, Vice Presidents and General Managers.

Something about

BLENDING

Monsanto's *granular* Santomerse No. 1 is produced especially to give formulators of cleaning compounds a detergent that blends so perfectly with other ingredients that its identity is completely merged in the finished product.

Santomerse No. 1, *granular*, mixes thoroughly and easily with phosphates, silicates and carbonates, making mechanical blends that have much less tendency to stratify. When combined with sodium phosphate, Santomerse No. 1 delivers a detergency bonus through synergistic action.

Chemically, Santomerse No. 1, *granular*, is identical with Santomerse No. 1 flakes. It is equally effective in hot or cold, hard or soft water, in acid or alkaline solutions. It is a rapid wetter and an effective, all-purpose detergent that lifts out dirt and grease, holding dislodged particles in suspension so they are carried away in the rinse.

Formulators interested in a better way to make a better detergent compound are invited to investigate the possibilities of *granular* Santomerse No. 1. Contact any Monsanto office.

SANTOMERSE No. 1, granular

IT'S THE TEAMWORK THAT COUNTS

A few quick facts about SANTOMERSE No. 1

Formulators of detergent cleaners find in Santomerse No. 1 many effective properties that are helpful in producing a better product and, therefore, a better sales record.

CONTROLLED DENSITY—Santomerse No. 1 is manufactured in three densities, giving you the degree of bulking best suited to your products and markets.

COMPATIBILITY—Santomerse No. 1 is compatible with other detergents and builders.

EASY BLENDING—Santomerse No. 1 is available in flake or granular form, giving you a selection that blends readily with other ingredients without stratifying.

QUALITY PROTECTED—Santomerse No. 1 is shipped in wax-lined drums to protect its quality in transit and storage.

PROMPT SERVICE — Santomerse No. 1 is warehoused in 13 cities, coast to coast. Prompt shipment from point nearest you.

MONSANTO CHEMICAL COMPANY, Phosphate Division, 1700 South Second Street, St. Louis 4, Missouri.

DISTRICT SALES OFFICES: Birmingham, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Los Angeles, New York, Philadelphia, Portland, Ore., San Francisco, Seattle. In Canada, Monsanto Canada Limited, Montreal.

Santomerse: Reg. U. S. Pat. Off.

MONSANTO
CHEMICALS—PLASTICS

Serving Industry... Which Serves Mankind

MONSANTO CHEMICAL COMPANY
Phosphate Division, 1700 South Second Street
St. Louis 4, Missouri

Please send more information on the following: .....Santomerse No. 1 .....Santomerse No. 1, granular .....Tetrasodium Pyrophosphate .....Sodium Tripolyphosphate.

Name.....Title.....

Company.....

Street.....

City.....Zone.....State.....

in harmony...

with your private brands

The octave of PQ Powdered Silicates forms the right combination for your cleaning compounds and detergents. In this group are the unique alkali-soluble silica properties to add distinctive appeal to private brand cleaners. Check the score—

PERFORMANCE— Properly balanced soluble silica component of PQ Silicates steps up cleaning action-quick dirt dissolving, effective soil suspension, protection of the surface, no dirt re-deposit.

COMPATIBILITY— Good free-flowing mixers with other alkalies, soap, rosin, synthetic detergents, complex phosphates.

APPEARANCE— Uniformly attractive, clean, white granules and powders. Same quality, shipment after shipment, insures easy control in your formulas.

PACKING— Available in convenient paper bags, 100 lb. net; fiber drums of approximately 125 and 300 lb. capacity. (Fiber drums can be re-labled and re-used.)

PHILADELPHIA QUARTZ COMPANY
1152 Public Ledger Bldg., Philadelphia 6, Pa.

- G Silicate ($Na_2O.3.22SiO_2$). Hydrated powdered (trisilicate). Rapidly soluble.
- GD Silicate ($Na_2O.2SiO_2$). Hydrated, alkaline powder. pH of 1% solution 11.5.
- SS-C-Pwd. ($Na_2O.2SiO_2$). Anhydrous powder. Dissolves in boiling water.
- SS-C-200-Special ($Na_2O.2SiO_2$). Anhydrous alkaline powder. Slowly soluble.
- Metso Granular ($Na_2SiO_3.5H_2O$). Sodium metasilicate pentahydrate; white granules. Dissolves readily.
- Metso 99 ($Na_3HSiO_4.5H_2O$). Sodium sesquisilicate (U.S. Pat. 2145749). White, granular, free-flowing. Vigorous cleaner.
- Metso 55—metasilicate detergent integrally mfg. with special water-softening and wetting ingredients.
- Metso 66—brown granular, metasilicate compound integrally combined with emulsifying ingredient.

We are holding for your request a copy of Bulletin 17-2 which describes the PQ Dry Soluble Silicates and Metso Silicated Detergents which are of interest to formulators of cleaning compounds.

HERE IT IS! The sensational SAFE way to keep floors clean, polished dustless and disinfected.

Mayntane

the anti-slip anti-dust

LIQUID FLOOR MAINTENANCE COMPOUND

one stroke

LIFTS dirt off floor...

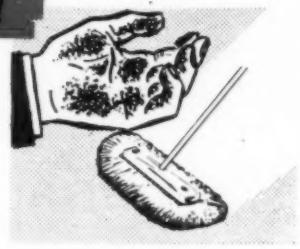
—*instantly* makes any type floor twice as clean as labor wasting brush sweeping ever can

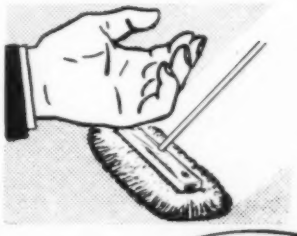
HERE'S PROOF!

Money back if you can't *always* duplicate this test 100% on your own floor.

1 *Sweep your floor with your favorite sweeping compound; then rub palm of hand over swept floor. Your palm is BLACK! Now slide foot on floor; the old wax is slippery!*

2 *Stroke MAYNTANE over floor ONCE—rub floor again with palm—your hand is spotless. Slide! Your floor is now anti-slip!*





Astounded users compare MAYNTANE to a magnet. It doesn't pile up dirt but LIFTS it onto a yarn-brush sweeper—*wraps* the dirt into little balls that can't adhere to brush. To release balls, tap brush gently. Balls drop out.

Each brushing leaves an imperceptable film that builds up more lustre every time—*holds down dust till next brushing!*

MAYNTANE enhances the beauty and natural color of *every type floor* . . adds years to floor life by ending need for abrasive sweeping compounds and frequent soap-and-water washings. *Not a streak or smear in a thousand applications.*

Users everywhere report a *new low in floor maintenance cost.* A single application—to brush, NOT to floor— retains its dirt-lifting efficiency after repeated brushings. Floors are cleaned in a fraction of time required by ordinary sweeping and its lustre-building feature minimizes number of waxings required.

FREE to your Customers

Extra-wide and full yarn-brush—made especially for MAYNTANE—has sixteen inch durable staple cotton strands for speedy labor saving application over large or small areas. Supplied to your customers FREE OF EXTRA CHARGE. Clip coupon for deal.

Hyson PRODUCTS COMPANY - 932 WEST 38th PLACE - CHICAGO, ILL.

MAIL COUPON TODAY!

Hyson Products Co., 932 W. 38th Place, Chicago, Ill.
Send details of MAYNTANE DEAL.

Company

Address

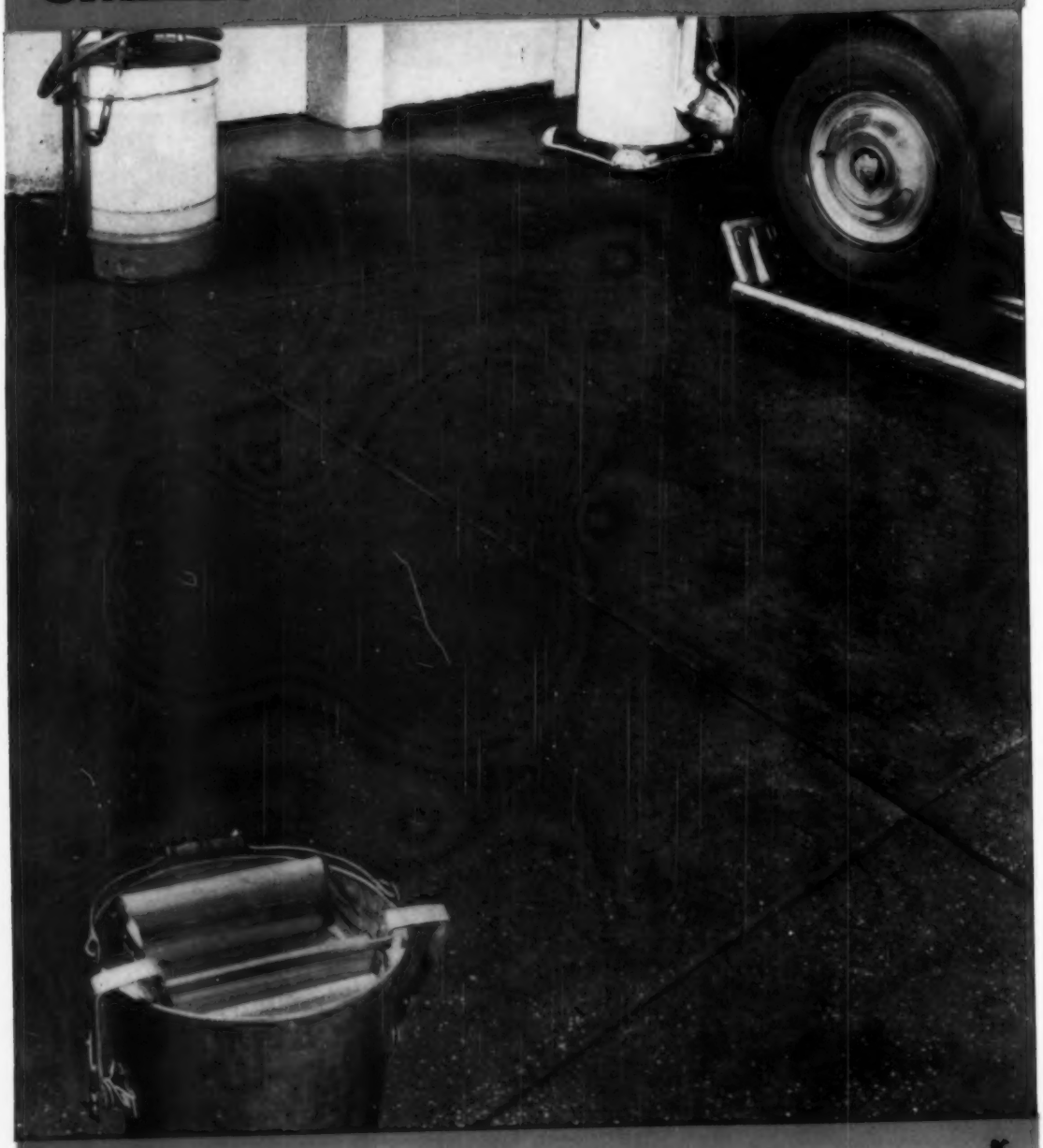
City State

By

PINE OIL

for soaps, cleaning compounds, disinfectants

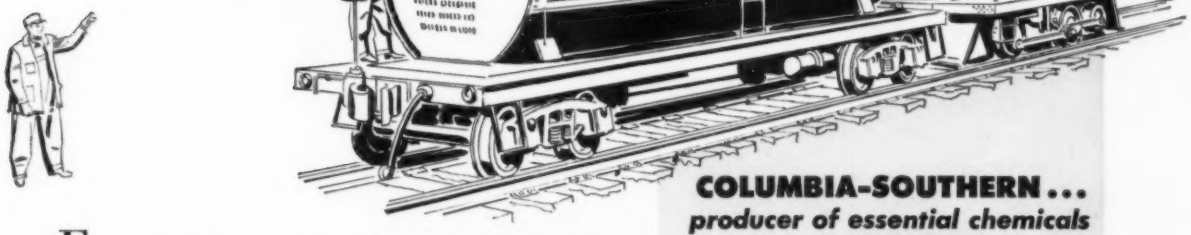
SMELLS CLEAN... CLEANS CLEAN



HERCULES POWDER COMPANY Naval Stores Dept., 961 Market St., Wilmington, Del.

NC52-1

"here comes another one"



COLUMBIA-SOUTHERN . . .
producer of essential chemicals for industry

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LIQUID CHLORINE
SODIUM BICARBONATE
CAUSTIC POTASH
CALCIUM CHLORIDE
PHOSFLAKE • S.P. FLAKE
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SODA BRIQUETTES
MODIFIED SODAS
CALCENE TM • CAUSTIC ASH
SILENE EF • HI-SIL
MONO-CHLOROBENZENE
ORTHO-DICHLOROBENZENE
PARA-DICHLOROBENZENE
BENZENE HEXACHLORIDE
MURIATIC ACID
PACIFIC CRYSTALS
PERCHLORETHYLENE
PITTCHLOR

For nearly half a century, shipments of caustic soda, made by the Columbia-Southern organization, have been rolling over the rails.

With this background of experience, Columbia-Southern has pioneered in developing new methods of caustic soda production, handling, transportation and unloading in order to better serve its customers.

The growth of American industry is reflected in the uses and consumption of caustic soda. Columbia-Southern's original list of a few caustic soda customers has broadened over the years into an ever-widening circle of new users and new friends.

Columbia-Southern policies are an important factor contributing to enduring business relationships. You may find it to your advantage, as many others have, to specify Columbia-Southern as your supplier of caustic soda.

COLUMBIA-SOUTHERN
CHEMICAL CORPORATION
SUBSIDIARY OF PITTSBURGH PLATE GLASS COMPANY

EXECUTIVE OFFICES:
FIFTH AVENUE AT BELLEFIELD
PITTSBURGH 13, PA.

DISTRICT OFFICES:
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To replace the unusually high priced Natural Oils — GERANIUM BERGAMOT VETIVERT YLANG

We offer you 5 top-quality Synthetics

With prices on these important perfumery oils steadily advancing, we feel sure you will be interested in our new line of synthetics. Despite their economical price *(from 50% to 80% less than the natural oils)* we know you will find them most valuable when used either alone or with the natural oils to produce the very finest perfumeries. You can't afford to miss this opportunity to test these new synthetics yourself! Write, wire or phone *today* for samples of:

OIL GERANIUM SYNTHETIC SUPERFINE • RANIUM (New Synthetic Geranium)
OIL BERGAMOT SYNTHETIC 1950 • OIL VETIVERT SYNTHETIC SPECIAL
OIL YLANG SYNTHETIC SUPERFINE

AROMATIC PRODUCTS, INC.

15 East 30th Street, New York 16

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D.Y
QUALITY SINCE 1844

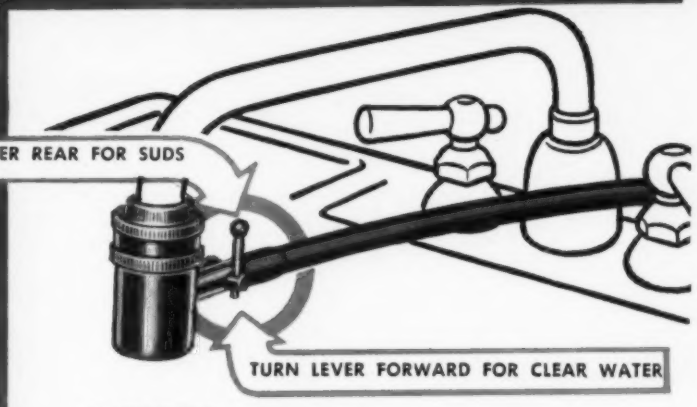
Here's How you can get more Restaurant Business... and make more money... **PLUS** a steady Volume of **profitable repeat** sales!

new **Buckeye**

"DYJET"

the kitchen faucet dispenser every restaurant wants

• note finger-tip control!



"DYJET" *measuring dispenser* Pat. Applied For

You can cash in on this item handsomely! Once you put a D-Y Buckeye *"DYJET"* in a customer's kitchen he'll *never* be without it! *"DYJET"* fits all standard faucets in a jiffy and, at the flip of the little control it gives oceans of rich, foamy, grease cutting suds—or crystal clear rinse water. No fuss, muss or bother. It's PRACTICAL, thoroughly tested in actual use, completely fool-proof!

Buckeye *"DYJET"* costs your customers nothing... it's included with Buckeye *"DYSH"*!

Yes, you offer *"DYJET"* with *"DYSH"*—the concentrated, super-soapless detergent for instant, longer-lasting suds! *"DYSH"* is the most popular product for hand dishwashing of Dishes, Pots and Pans, Glasses, China, Silverware and ALL Counterware. Get all the facts NOW!

CASH IN

on *"DYJET"* the measuring faucet dispenser with finger-tip control—plus Buckeye *"DYSH"* the latest development for instant suds. It means steady, repeat sales to *every* restaurant in your territory. Write today!

D.Y
QUALITY SINCE 1844

The **DAVIES-YOUNG** Soap Co.
Dayton 1, Ohio

Mail Coupon NOW! ➡

Clip Coupon... Mail at Once

FREE OFFER

SSC 2/52

THE DAVIES-YOUNG SOAP COMPANY
BOX 995, DAYTON 1, OHIO

Yes! We would like a free Demonstration of Buckeye *"DYJET"* and *"DYSH"*. Show us how we can cash in on this unusual deal.

Firm Name_____

Address_____

City_____ Zone____ State_____

Fact to Remember

WHETHER SUPPLY IS LONG OR SHORT...

Westvaco®
CHEMICALS
TRADE MARK

is the Only integrated producer of all these basic ingredients for soapers

CAUSTIC SODA

Liquid 50% Standard and Rayon Grades
Liquid 70-73% Standard Grade, Flake and Solid, 76% Na_2O

CAUSTIC POTASH

45% Liquid, Flake and Solid

NATURAL SODA ASH

Light and Dense

Crude Sodium Sesquicarbonate
Acid Sodium Pyrophosphate
Disodium Phosphate
Monosodium Phosphate
Sodium Tripolyphosphate
Tetrasodium Pyrophosphate
Phosphated Caustic Soda
Chlorinated Sodium Phosphate
Dipotassium Phosphate
Monopotassium Phosphate
Potassium Phosphate Liquor
Tetrapotassium Pyrophosphate
Tripotassium Phosphate

Mixtures containing phosphates, alkalis, detergents, etc., formulated to order.

With basic, growing Alkali and elemental Phosphorus production, Westvaco can give you the kind of quality and service on which you can build your business—in good times and bad.

You'll get delivery "as promised", practical Technical Service on formulations, handling, etc., and a friendly interest by men who can give you a prompt, concise answer on your alkali-phosphate or dry mixture requirements.

Contract or spot, it pays to check Westvaco first!

WESTVACO CHEMICAL DIVISION
FOOD MACHINERY AND CHEMICAL CORPORATION
161 EAST 42nd STREET, NEW YORK 17, N.Y.
CHICAGO, ILL. • CLEVELAND, OHIO • CINCINNATI, OHIO • CHARLOTTE, N. C.
ST. LOUIS, MO. • POCATELLO, IDAHO • LOS ANGELES, CALIF. • NEWARK, CALIF.

fmc

FLEXIBLE

PROCTOR *Automatic*
FLAKE SOAP SYSTEM

• process soap for final use as bars, flakes or powder

• process many different formulae and a wide range of moisture content

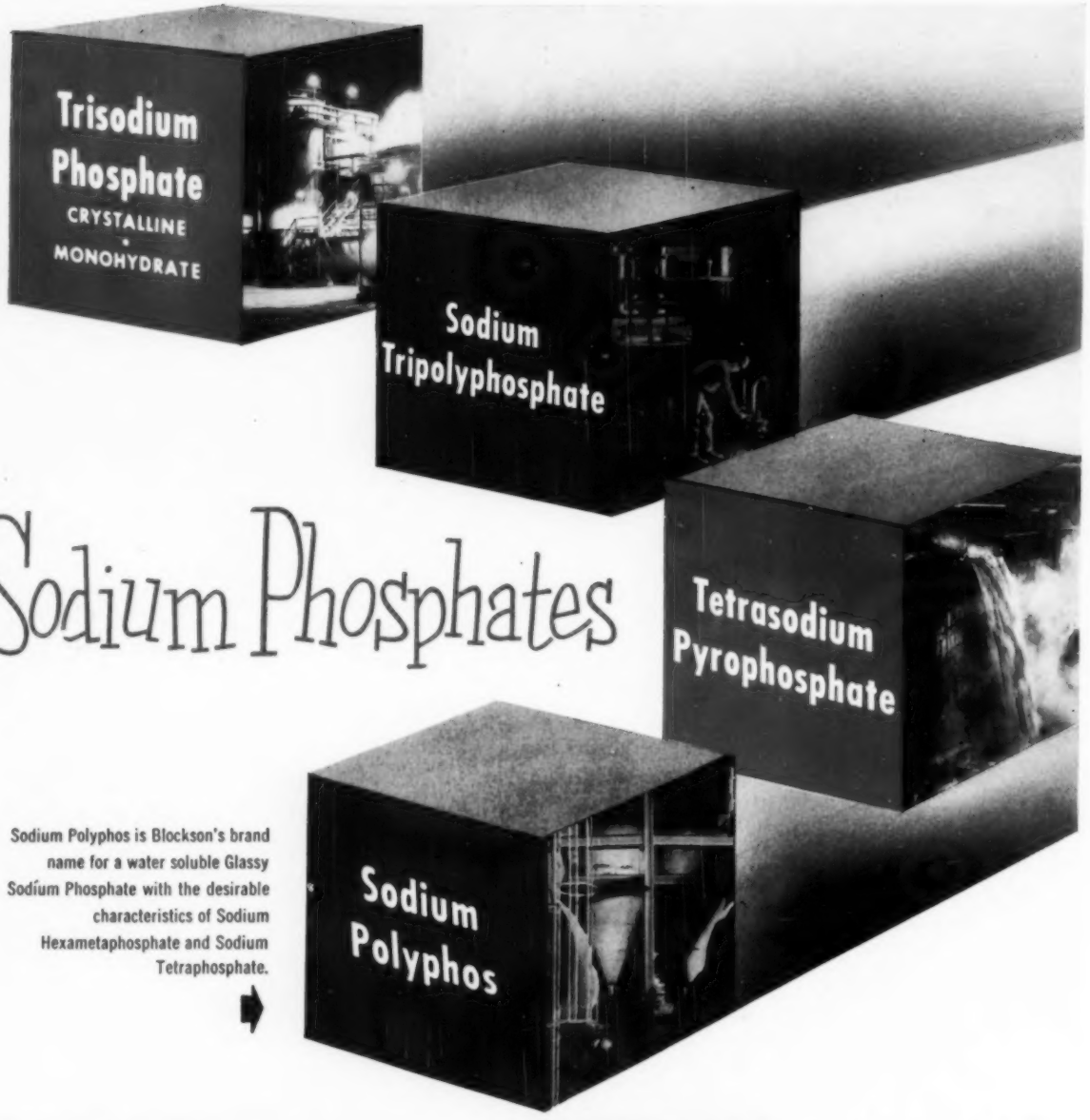
One of the advantages of the Proctor automatic flake soap system that has made it the choice of so many manufacturers is its flexibility. With this one system the producer can process soap for final use as bars, flakes or powder or soaps of different formulae. The moisture content of the soap may be varied to suit individual cases. The entire system is designed with flexibility in mind. The temperatures and humidity within the dryer, and the speed of the conveyors carrying soap through the dryer—may be varied to meet the requirements of different formulae or the end form which the soap is to take. Always the result is the same—dependably uniform finished soap. An investment in a Proctor automatic flake soap system is an investment in profit—for the flexibility of this system makes it adaptable to your every soap drying requirement . . . assuring you uniform results in every instance. For information on how the flexibility of a Proctor automatic flake soap system may contribute to your profits — write today.

PROCTOR & SCHWARTZ, INC.
625 TABOR ROAD
PHILADELPHIA 20 · PA.

AN INVITATION TO PATENT HOLDERS

Have you patented equipment which you have developed for your own line of business that you would care to have developed, manufactured, or sold?

If such equipment comes within the line of our manufacturing and selling experience, we would be pleased to have you contact us. We will discuss the matter with you without obligation. If there seems to be a mutual advantage we may be able to realize good returns on new developments.



Sodium Phosphates

Sodium Polyphos is Blockson's brand name for a water soluble Glassy Sodium Phosphate with the desirable characteristics of Sodium Hexametaphosphate and Sodium Tetraphosphate.

BLOCKSON

BLOCKSON IS ALSO A MAJOR PRODUCER OF...	SODIUM ACID PYROPHOSPHATE
SODIUM SILICOFLUORIDE	CHLORINATED TRISODIUM PHOSPHATE
SODIUM FLUORIDE	DISODIUM PHOSPHATE Anhydrous • Crystalline
HYGRADE FERTILIZER	MONOSODIUM PHOSPHATE Anhydrous • Monohydrate

BLOCKSON CHEMICAL COMPANY • JOLIET, ILLINOIS

FOR *Quality* THAT BUILDS CUSTOMER SATISFACTION AND REPEAT PROFITS...

Feature

PURO

Deodorants

MORE ECONOMICAL... LONGER LASTING

MADE OF 100% PURE PARADICHLOROBENZENE FUSED WITH FINE LONG LASTING PERFUME OILS ON HUGE MODERN POWER PRESSES. ATTRACTIVELY PACKAGED!

OUTSTANDING SELLER FOR EVERY PUBLIC USE

PURO 4 OZ. DEODORANT BLOCKS—

Most popular size and shape, for urinals and general use. Made to U. S. Navy specification No. 51-D-23 (Int.). Attractive cellophane wrap and special tube containers protect from evaporation. Available in pleasant Surf, Lilac and Rose colors. Economical — long lasting.

EXTRA PROFITS FROM THIS EXCLUSIVE SPECIALTY

PURO SANA-BOLE DEODORANT—

Banishes odors at their source. Patented "Snap-on" wire hanger holds cake securely in bowl and practically out of sight. Delicate flower-like fragrance. Ideal for home, hotel and public toilets —a much larger market than urinal blocks. A sensational repeater, 4 oz. cake.

NEW HEAVY DUTY HANGER BLOCKS

PURO JUMBO DEODORANT BLOCKS—

By popular demand, now available in 8, 12, 16 and 24 oz. cakes which are effective longer over a larger area. The three larger blocks come in convenient hanger containers. Cellophane wrap prevents evaporation before use. In clean smelling Surf, Lilac and Rose.

THE *Puro* COMPANY, Inc.

(Established 1929)

2801 LOCUST STREET **ST. LOUIS 3, MO.**

WRITE FOR SAMPLES AND JOBBER PRICES

we make the grade

International Caustic Potash, Carbonate of Potash and other related chemicals are available in many grades to meet any or all of your production and processing requirements.

CAUSTIC POTASH (KOH)

...For general usage (chemicals, dyeing detergents, greases, mining, inks, mercerizing, electroplating, etc.)

solid—90%. Available in 700 lb. drums.

flake—90%. Available in 100, 225 & 400 lb. drums.

granular—90%. Available in 100, 225 & 500 lb. drums.

broken—90%. Available in 100 & 450 lb. drums.

liquid, iron free, a sparkling clear water-white solution of 45%. Available in tank cars and 675 lb. drums.

...For soap making

special iron free grade—45 to 50%. Available in 675 lb. drums and tank cars.

...For manufacture of batteries and chemicals where high purity is necessary.

liquid, special low chloride, iron free grade—45%. Available in tank cars and drums.

...For absorption of moisture and CO_2 in air liquifaction

Isco American Selected Walnut—available in 100 and 225 lb. drums.

CARBONATE OF POTASH (K_2CO_3)

...Primarily for the glass industry, but also for fields such as chemicals, pharmaceuticals, soap, textiles, finishing oils, wool scouring, fertilizers, chocolate and dyestuffs.

liquid—47 to 48%. Available in 675 lb. drums and tank cars.

hydrated—83 to 85%. Available in 100 lb. bags and 400 lb. barrels.

calcined—99 to 100%. Available in 100 lb. bags and 325 lb. barrels.

FERRIC CHLORIDE ($FeCl_3$)

...Coagulant for sewage and industrial wastes

lump (crystals)—60% active plus 40% water of crystallization. Available in 500 lb. wooden casks, 300 lb. barrels, and 100 and 200 lb. kegs.

LIQUID CHLORINE (Cl_2)

...For bleaching, in water and sewage treatment, and for manufacture of chemicals, solvents, drugs, etc.

99.7%—Available in tank cars.

● International is the new name for the old Isco line of potash and chlorine products now being made by International Minerals—an old name in the potash field—now expanding its research and production facilities for the chemical industry.

MINERALS International CHEMICALS

POTASH DIVISION

INTERNATIONAL MINERALS & CHEMICAL CORPORATION

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61 BROADWAY, NEW YORK 6, NEW YORK

ANOTHER INTERNATIONAL PLANT TO SERVE INDUSTRY

After Closing . . .

Glycerine Market Sags

Small soapers and fat splitters are finding demand for crude glycerine at low ebb with a tendency for prices to sag. Offers in the midwest of 80% crude under 20c lb. were reported not finding takers among refiners Feb. 10. The crude on the open market currently ranges between 21-23 cents. Some agitation to revamp the spread between crude and refined ceilings by OPS was indicated in Washington, a figure of 8 or 9c being mentioned. Current market for refined grades is 44½ cents, C.L. Ceiling on crude is 37½ cents and on refined 54½ cents.

—— ♦ ——

More Cans for Paste Soap

Can Order M-25 was amended recently to raise the quota on cans to be used for packing mechanics' paste hand soaps from 70 to 100 per cent of the base period. At the same time cans for mechanics' paste hand soap were put into group one, which includes essential products in the non-food class. The quota was increased, according to the announcement to provide adequate quantities of this product for defense plant workers who are increasing in numbers.

—— ♦ ——

F.T.C. Soap Hearing

Presentation of their response to government charges of unlawful discrimination in soap sales will begin by three soap companies at a Federal Trade Commission hearing in New York on April 28. Legal arguments marked an F.T.C. hearing in Washington that ended Feb. 1. Further testimony is expected to be given on April 7 in New York. Involved are Colgate-Palmolive-Peet Co., Jersey City, N. J., Lever Brothers Co., New York, and Procter & Gamble Co., Cincinnati. The case is now three years old and it is expected that the F.T.C. will conclude its presentation during hearings beginning April 7.

The latest hearing dealt with a phase of the complaint in which the government charges that the companies paid or contracted to pay certain advertising services and facilities without making such payments available to all other competing customers on "proportionally equal terms."

—— ♦ ——

New Capitol Soap Plant

Production of its line of sanitary chemical specialties for the sanitary supply distributing trade is now under way at the new plant of Capitol Soap Corp., 310 Colfax Ave., Clifton, N. J., according to a recent announcement. Production facilities have been expanded to produce the company's line of sweeping compound, powdered hand soaps, dishwashing compounds and other chemical specialties made under the firm's trade name "Capco" brand.

—— ♦ ——

Ky. Manufacturing Bill

A bill which would put the state of Kentucky into the business of manufacturing soaps, disinfectants, floor waxes, sweeping compounds, detergents, mopping powder, window cleaner, and other sanitary chemicals and janitor supplies was introduced in the state senate recently by Senator Stanley Hoffman of Henderson. The bill would call for an expenditure to buy the necessary materials and equipment. The materials manufactured by the state would be for consumption by Kentucky institutions and agencies.

—— ♦ ——

Palagonia to Orbis

The appointment of C. Palagonia as sales manager of Orbis Products Corp., New York essential oil, aromatic chemical and related material firm, was announced recently. He succeeds Arthur P. Hafner, who has joined J. Berlage Co., New York.

Insecticide Supply Seen Good for 1952

WITH the exception of pyrethrum, most of the ingredients used in the manufacture of insecticides are in good supply, officials of the National Production Authority told the Household, Industrial and Dairy Insecticides Industry Advisory Committee, meeting in Washington, D. C., recently. A munitions Board representative told the committee that no plans are under consideration to release pyrethrum from the Government stockpile. Although no purchases have been made for more than a year, present plans are to maintain stocks at their present level, he said. The availability of allethrin, it was explained, has made it possible for the government to discontinue stockpiling pyrethrum.

The industry committee recommended that NPA urge government agencies to consider releasing some Government held pyrethrum for commercial use since the military is not entirely dependent on the material for many uses. It also requested that NPA raise its present limitations on the use of tin containers for insecticides packed in quantities of less than one gallon from 70 per cent of 1950 use to 90 per cent, the limit set on containers of one gallon or more. An increase in NPA allocations of brass for the manufacture of valves used on aerosol dispensers was also urged by the committee.

Tin will remain in short supply despite imports from the United Kingdom, NPA officials pointed out. The availability of tin determines the container quotas established under M-25. It was also pointed out that glass can be used for most purposes in packing quantities of less than one gallon.

Industry spokesmen said it was not practicable to change over to glass containers because of the problems of equipment, packing and increased shipping weight involved.

Three chemicals used in insecticide manufacture said to be in short supply include: hydrofluoric acid, chlorine and sulfuric acid. Chlorine supplies are expected to come into balance by 1953, when production will reach 3.4 million tons annually.

Supplies of principal insecticidal ingredients were reviewed by NPA. They include allethrin which

is not short. Military requirements for its use in aerosol insecticides have not been sufficient to limit availability for civilian use. Production by 1953 should be 500,000 pounds.

Chlordane supplies in 1952 probably will meet demand.

DDT's estimated supply of 130 million pounds in 1952 will balance requirements, estimated as follows: U.S.D.A., 85 million pounds; military, 5 million pounds; export, 40 million pounds. By 1955 production should be 155 million pounds, against 105 million pounds in 1951.

No shortage of lindane is reported. Additional capacity will be in operation during part of 1952.

Pyrethrum stocks are low, but '52 imports should equal those of 1951. 1951 production was 20 per cent over 1950, according to reports from Kenya. Increased Brazilian production is looked for, but little is for U.S. Imports for first 11 months of 1951 were 6.1 million pounds, as compared with 8.3 million pounds for 1950. 1952 requirements of U.S.D.A. are 5 million pounds.

Rotenone supply is reported high. Imports this year will depend on demand. For the first 11 months of 1951 they were 5.6 million pounds, as against 9.8 million pounds in 1950. The U.S.D.A. will require 10 million pounds in 1952.

Philip H. Groggins of NPA's Chemical Division presided at the meeting which was attended by the following committee members:

J. M. Kimmel, Aeropak, Inc., Chicago; Donald Finlayson, Bridgeport Brass Co., Bridgeport, Conn.; H. R. Shepherd, Connecticut Chemical Research Co., Bridgeport; H. E. Peterson, Continental Filling Co., Danville, Ill.; Dr. George W. Fiero, Esso Standard Oil Co., New York; Charles W. Furst, Furst-McNess Co., Freeport, Ill.; T. B. Welsh, Gulf Oil Corp., Pittsburg; Preston B. Heller, B. Heller & Co., Chicago; T. Carter Parkinson, McCormick & Co., Baltimore, and C. A. Clark, McLaughlin Gormley King Co., Minneapolis.

Cut "Cashmere Bouquet"

A reduction in the price of "Cashmere Bouquet" soap, bringing it to the lowest price in its 83 year history was announced early in February by Colgate-Palmolive-Peet Co., Jersey City, N. J.

Gillette Bills Hearings Off

A public hearing on bills to regulate the labeling and shipment of soaps and other household cleaners scheduled to be opened February 11 before a Senate committee in Washington, D. C., has been postponed. The hearings are on two bills of Senator Guy M. Gillette of Iowa, according to Chairman Johnson of the Senate Interstate Commerce Committee. The bills, Senate Bills 343-344 would require labeling of soaps and detergents and prohibit interstate shipping of "injurious, misrepresented and uninformatively labeled household cleansers."

Study Para, Naphtha Rules

Appointment of two committees of manufacturers and packers and distributors of naphthalene and paradichlorobenzene products to study the recently issued memorandum of the Canadian Department of Agriculture regarding labeling of these products for insect control took place at a meeting at the Chemists' Club, New York, Feb. 5. H. W. Hamilton, secretary of the Chemical Specialties Manufacturers Assn. called the meeting and presided until the election of the committees under the chairmanship of M. Weiner of Standard Chlorine Products of Newark, N. J.

The meeting was called to discuss the memorandum, signed by C. H. Jefferson, Administrative Office (pesticides) Plant Products Division of the Canadian Agriculture Department in Ottawa. The memorandum sets up a schedule of claims and directions for use required to be followed in labeling of para and naphtha in insect control. The use of para for controlling insects in clothes closets in everyday use is not recommended and such advice on labels must be deleted. In addition a caution statement: "Not effective in ordinary clothes closets", must be added. Similarly for garment bags and furniture, the schedule calls for deletion of claims that para is effective for these uses. On naphthalene, the new memorandum calls for deletion of claims that it is effective in clothes closets and storage vaults, in clothes closets in everyday use, in garment bags and for furniture.

The committees will meet again on March 5th to discuss activities to be undertaken.

Govt. Floor Wax Testing

Issuance of an interim federal specification covering water-emulsion floor wax was announced recently by the Federal Supply Service, General Services Administration, Washington, D. C. The interim specification, P-W-151b (GSA-FSS), supercedes GSA 784b, issued Nov. 28, 1950. On page 12 of the specification, section 6.2 calls for government testing of products in order for them to qualify for eligibility to receive orders or contracts for products covered by the specification.

By way of explanation for requiring suppliers to have their product(s) tested and listed, the Federal Supply Service states that such steps are necessary because of the nature of floor wax and the established commercial practices utilized in its distribution. These include private label products, repackaging by distributors who buy in bulk from manufacturers, and dilution of concentrates at the distributor's terminal warehouses. Therefore, the General Services Administration has set up these rules:

1.) All water emulsion floor wax purchased by the government must be qualified by the prime producer or manufacturer. The fee for qualification testing is $100. The wax will be identified by either brand name, catalog number or similar means.

2.) If the wax is further processed (including repackaging), by the distributor, it must again be qualified and as a different brand. The fee for this is $100. Acceptance by the government is to be based on qualification by both prime producer and distributor.

3.) Such floor wax produced by a manufacturer which has been qualified and packaged by the manufacturer for private label accounts is acceptable provided it has been certified by double affidavit (both manufacturer and distributor), that it is the same product as qualified by the manufacturer under his catalog number, brand name, etc. The fee for this is $50.

stop the eye . . . start the sale
pack to attract in maryland blue

Beauty is as beauty does . . . and the rich, colorful beauty of Maryland Blue Glass attracts the eyes and dollars of millions of shoppers. Blue stands out and says, "Buy Me!" Blue does double-duty as a container and a salesman . . . it acts as a powerful advertising, merchandising and selling tool. So dress your product in the style of many leading brands. Pack to attract in Maryland Blue. Write for samples today.

MARYLAND GLASS CORPORATION • BALTIMORE 30, MARYLAND

also available in clear glass

YOU CAN'T BUY A BETTER DETERGENT THAN

D-40

ORONITE CHEMICAL COMPANY

THE NAME TO WATCH IN CHEMICALS

®

COMPARE Oronite D-40 any way you like — for emulsifying fats and greases, for reducing surface and interfacial tension, for efficiency in strong acid or alkaline solutions. You'll always come up with the same answer. There just isn't any better all-around detergent than D-40.

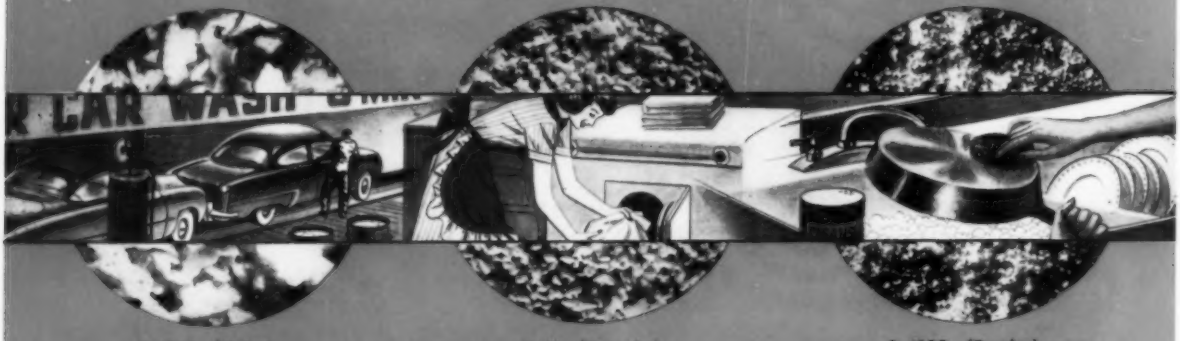
That's why so many re-packagers and compounders of washing powders, scouring cleansers and industrial cleaning compounds stick to D-40. They know they can depend on its high quality and uniformity.

Write or telephone the Oronite office nearest you for full information.

D-40 is available in 3 particle sizes

Flakes, granules, powder—all are of the same high quality and purity. Use the one that best fits your requirements.

Photographs show D-40 particle sizes enlarged 5 times.



D-40SF (Flakes) D-40 (Granules) D-40FG (Powder)

The quality and performance of detergent materials made by Oronite have been proved in more than a billion pounds of household and industrial cleaning compounds. Large-scale production facilities and experience provide Oronite the background for better detergents.

ORONITE CHEMICAL COMPANY

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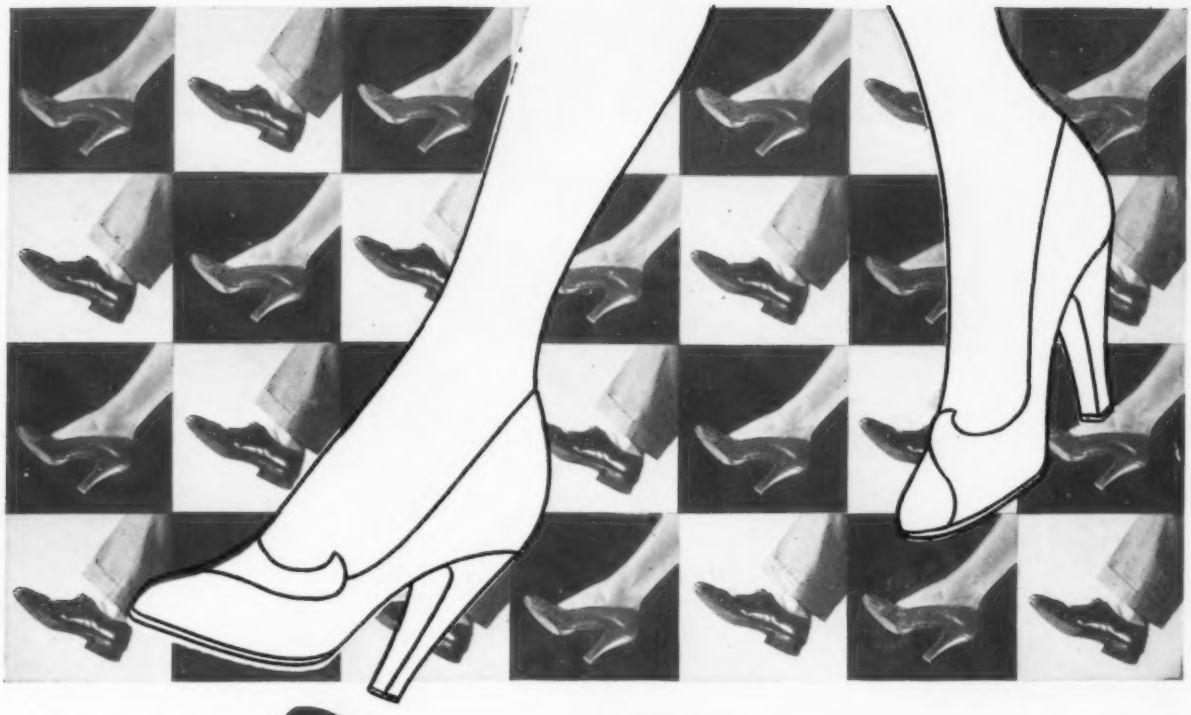

Safer Footing

WITH WAXES CONTAINING ANTI-SLIP LUDOX®

WALKERS GET ADDED ANTI-SLIP SECURITY on waxed floors . . . when waxes are modified with Du Pont "Ludox." That's because hard, tiny particles of "Ludox" colloidal silica surround softer wax particles . . . press into them when stepped upon and help keep the foot from slipping.

NO WONDER MORE AND MORE stores, hospitals, schools and other industrial and public buildings are using waxes improved with "Ludox." For in addition to extra safety, they are fully equal to regular floor waxes in gloss, water-resistance, freeze-resistance and leveling.

MANY SAFETY AND SANITATION ENGINEERS specify properly formulated waxes containing "Ludox." A variety of formulations are available to meet specialized needs of institutions, business and industry. And new anti-slip floor waxes are continually being developed by wax manufacturers and Du Pont working together.

ASK YOUR WAX SUPPLIER about these waxes containing Du Pont "Ludox." Most likely he can help solve your floor-wax problems. E. I. du Pont de Nemours & Co. (Inc.), Grasselli Chemicals Dept., Wilmington, Delaware.

DU PONT
REG. U. S. PAT. OFF.

LUDOX
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COLLOIDAL SILICA

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

An Aromatic of Growing Interest

C·64

. . . TO WEAVE RICH PATTERNS IN FRAGRANCE !

Since its introduction as an aromatic chemical, C·64® has successfully captured and held the attention of an increasing number of manufacturers of toilet soaps, sanitary and kindred products. In part, C·64 owes its success to its ability to mask unpleasant inherent odors that tend to create sales resistance in some soap products.

C·64 is a powerful crystalline aromatic suggesting the active odor character of Patchouli. It is long lasting and its odor associates itself easily with other aromatics as well as essential oils.

Write us for a working sample and suggestions for its use for your particular problem.

BUSH AROMATICS

DIVISION OF THE DOW CHEMICAL COMPANY • 629 GROVE STREET • JERSEY CITY 2, N. J.

DOW CHEMICAL OF CANADA, LIMITED, TORONTO, CANADA

EXCLUSIVE SALES REPRESENTATIVE FOR SYNAROME IN THE UNITED STATES, CANADA AND CUBA.

DOW

Duraglas Shelfline bottles are available in 16 sizes: ¼, ½, ¾, 1, 1½, 2, 2½, 3, 4, 5, 6, 8, 10, 12, 16 and 32-ounce capacities.

Make your package POP OUT

MANY A MANUFACTURER wants package individuality—but cost factors make him turn to unadorned stock bottles instead.

However, stock bottles *can* be distinctive and still keep their practical advantages of low cost, operating economy, strength and availability.

A different closure, a striking label design, an unusual use of color—presto!—a Duraglas stock-mold bottle becomes an individual container worthy of *any* drug, chemical or toiletry.

Call the local Owens-Illinois office now, to discuss your specific needs.

Duraglas Bottles are Protectors of Quality

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consider its odor....

The ultimate success of any product is highly influenced by its odor.

Altho odor appreciation in such products as detergents, insecticides and other chemical specialties may be a subconscious influence—it is an *effective* influence on product acceptability.

Consider seriously the odor of your product from these stand points:

- EFFECTIVE MASKING.
- DESIRABLE ODOR LIFE AND VOLUME FOR THE PARTICULAR PRODUCT.
- SUITABILITY OF ODOR TYPE TO YOUR MARKET.

The advice and recommendations of the van Ameringen-Haebler staff of perfume chemists—experienced masters in odor engineering—can be of real help to you in determining the proper, effective perfuming of your product.

We solicit your inquiries.

MANUFACTURERS AND CREATORS OF THE FINEST

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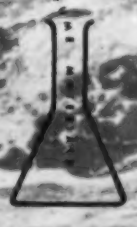


A little does a lot...

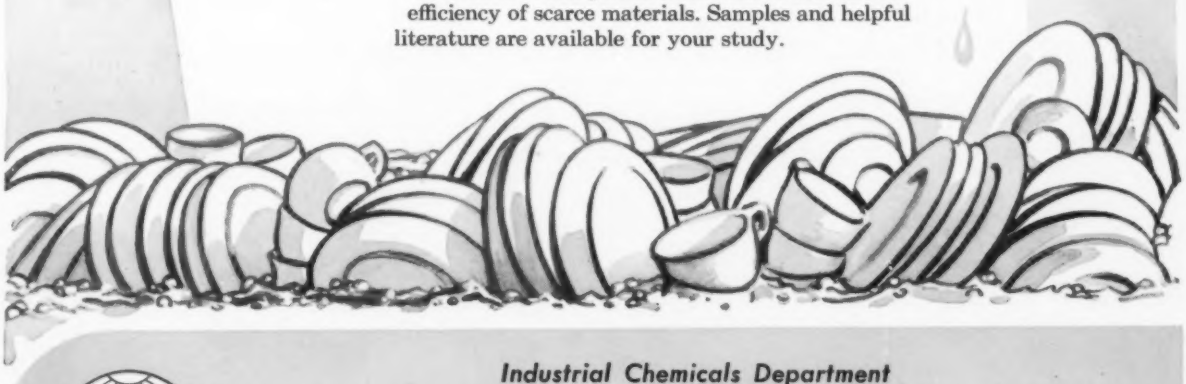
RENEX® is the best foundation for better detergents

You can solve virtually any cleaning problem . . . produce cleaning compounds tailor-made to *your* market . . . with RENEX. For example, a small amount of RENEX will give a tremendous boost to the detergency of a dish-washing compound . . . at concentrations of 2% to 5%, it greatly improves soil and grease removal as compared to alkali cleaners alone, and gives notably better draining and rinsing without streaking or hazy residue. Here's a formula meant to serve only as a guide and to show one of the uses of RENEX:

RENEX	5%
Sodium Hexametaphosphate	15%
Sodium Metasilicate	25%
Sodium Sesqui Carbonate	55%

There's nothing like RENEX for increasing the efficiency of soaps, alkalies, or sulfonates. As little as 5% RENEX has increased cleaning efficiency as much as 30%! RENEX is the best foundation for better detergents for dishwashers, home laundries, floor and wall cleaners—for the hundred and one household, industrial, and military cleaning jobs.

RENEX is low in cost and made from plentiful raw materials. Use a little of this plentiful material to increase the efficiency of scarce materials. Samples and helpful literature are available for your study.



Industrial Chemicals Department

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ATLAS POWDER COMPANY, CANADA, LTD., BRANTFORD, CANADA

ARE YOU READY?

Are you ready to sell your customers the finest in a built synthetic detergent in spray dried bead form? The answer is "yes" when you offer them . . .

SULFRAMIN* BUILT BEADS

Based on 30% Dodecyl Benzine Sulfonate.
Fortified with complex phosphates.
Balanced with the proper amount of CMC.
Blended with a great white dyestuff.
Inhibited against corrosion of silver and monel metals.

SULFRAMIN* BUILT BEADS are setting a new standard for detergents in the restaurant, institutional and laundry field.

PACKED
Bags — 50-lb.-multiwall paper
Drums — 41-gal. — 90 lbs. net.
Drums — 55-gal. — 130 lbs. net.

WIRE, WRITE- or PHONE for your sample and prices today

SULFRAMIN* AB-40 FLAKES
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*TRADEMARK REG. U. S. PAT. OFF.

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Perfumes take on new life when you use this fine blender
. . . this versatile, modern fixative . . . "Astrotone" BR!
Here's a true synthetic that makes perfumes sparkle . . .
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wholly soluble in and compatible with all perfume materials.
Need any help? Send for the helpful booklet telling you all about "Astrotone" BR . . . or consult us if you have a perfume problem. Write E. I. du Pont de Nemours & Co. (Inc.), Organic Chemicals Department, Aromatics Section, Wilmington 98, Delaware. Branch Offices: Atlanta, Boston, Charlotte, Chicago, New York, Philadelphia, Providence, San Francisco.
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DU PONT
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BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

Aroma Can't Be Built in a Day...

IT HAS TAKEN YEARS to develop many captivating aromas to fit the increasing demand for perfumery. In order to assist manufacturers in shortening the development period of their new products, NAUGATUCK AROMATICS has been constantly experimenting and developing such aromas for many years and is in a position to supply proven products to fit almost any problem. Why don't *you* consult with NAUGATUCK AROMATICS? You'll find a perfect combination of skill, resources and experience to help you handle your odor problem.

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DIVISION OF UNITED STATES RUBBER COMPANY

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ONE JUMP AHEAD

Research to explore the potentialities of its present products and to develop allied products . . . this is the secret of Niagara's position among the leading suppliers of quality chemicals for soap-making and for sanitary chemicals.

NIALK®

Caustic Soda
Caustic Potash
Carbonate of Potash
Paradichlorobenzene

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Liquid Chlorine • Caustic Potash • Carbonate of Potash • Paradichlorobenzene • Caustic Soda • TRICHLORethylene
NIAGATHAL® (Tetrachloro Phthalic Anhydride)

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FOR AMERICAN INDUSTRY

Disodium Phosphate
ANHYDROUS
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Trisodium Phosphate
$Na_3PO_4 \cdot 12H_2O$

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Tetrasodium Pyrophosphate
ANHYDROUS (TSPP) (Pyro)
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For Many Purposes

General Chemical pioneered in the manufacture of "wet process" phosphates over a half century ago. Out of its early work, the Company has developed specialized modern production techniques by which phosphates of highest quality and purity are being made to meet every industrial requirement.

Today, these techniques are enabling the Company to maintain peak outputs of the key phosphates listed here, independent of defense demands for elemental phosphorus and electrical power.

For your requirements, consult the General Chemical office serving you. Stocks are readily available from coast-to-coast distributing points.

For making soap, soap powder, synthetic detergents
For textile scouring
For treating oil well drilling muds
For making cleaning compounds, scouring powders
In boiler water compounds
In coating paper and de-inking
For paint removers
For metal cleaning
For stabilizing textile peroxide bleaches
For making cold-water paints, pigments
In manufacture of pharmaceuticals
In manufacture of ceramic ware

GENERAL CHEMICAL DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 Rector Street, New York 6, N. Y.

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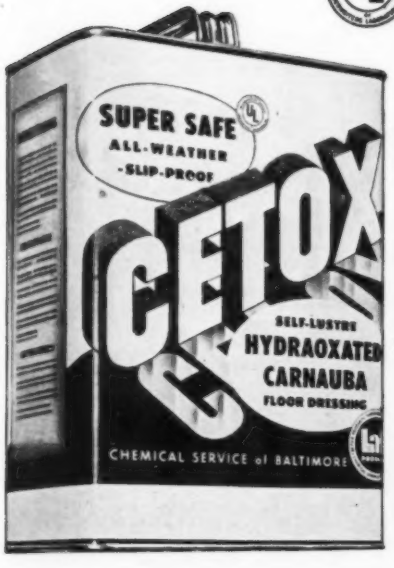
CETOX the Hydraoxated carnauba floor dressing that's extra safe all year 'round!



CETOX makes all floors super safe —especially throughout year's 30% inclement weather when the risk of slips and falls is greatest.

Super safe—even under wet shoes

Normally, water underfoot acts as a lubricant. CETOX is extra safe under spilled or tracked in water. You simply won't slip, because CETOX contains Carnauba with the slip hydraoxated out of it. No silicas, or abrasives added. *It's hydraoxated super safe!*

Beautiful and safe

Self lustre CETOX makes floors dazzling bright. It is a wet mop proof, tough wearing, dirt resisting, protective floor dressing that may readily be removed with the use of a mild detergent. In every way, CETOX is superior. For safety sake . . . put CETOX on your floors.

Listed by UNDERWRITERS' LABORATORIES, INC. as anti-slip floor treatment material.

Tested-approved by YORK RESEARCH CORPORATION for American Hotel Association.

Write for complete information and sample. Do it today!

Chemical Service of Baltimore

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MEMBER OF NATIONAL SAFETY COUNCIL.

"Hole in the dike!"

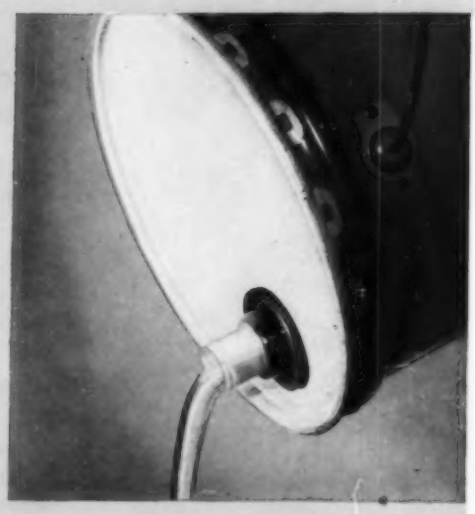
Legend praises the courage of the little Dutch boy who plugged a leak in the dike with his arm until help arrived.

Every closure in dispensing containers is a potential hole in the dike . . . a hole that demands a perfect plug to stop leakage from evaporation, corrosion, mishandling.

That's why FlexSpout®, a new leakproof and tamperproof sealing spout for containers, is already being used by the hundreds of thousands. FlexSpout is a joint development of Shell and the facilities of Rieke Metal Products Corporation.

FlexSpout, made of polyethylene resin, combines all three desirable features of the ideal chemical closure . . . a flexible "pull-out" spout; a strong, leakproof, tamperproof closure; and a remarkable resistance to chemical attack. FlexSpout is now a feature of Shell Chemical 1- and 5-gallon containers, and its use has spread throughout the packaging industry.

The FlexSpout closure is another example of Shell's search for better Service . . . for the users of industrial chemicals.



SHELL CHEMICAL CORPORATION

CHEMICAL PARTNER OF INDUSTRY AND AGRICULTURE

EASTERN DIVISION: 500 Fifth Avenue, New York 18
WESTERN DIVISION: 100 Bush Street, San Francisco 6

LOS ANGELES • HOUSTON • ST. LOUIS • CHICAGO
DETROIT • BOSTON • CLEVELAND • NEWARK

LOW PRICE adds to your selling advantage

Your customers find regular floor mopping a breeze with this quality synthetic cleaner. And when they want to take off old wax, just a little more Detergent No. 77 in hot water does the job.

This reputation as a wax remover and all-around good floor cleaner makes Detergent No. 77 a mainstay of many suppliers' lines.

Detergent No. 77 cuts grease as no soap can. The oceans of suds keep active . . . right on through. They get up dirt and float it away so it can't settle as dulling film. Detergent No. 77 washes cleaner . . . rinses clearer . . . gives brighter luster to everything it touches.

Priced competitively, it's easier to sell in every way.

NOT A SOAP, BUT A SYNTHETIC CLEANER

The finest floor cleaner we know how to produce. *Better than any floor soap in distilled water,* and tests prove it *3 times as effective in hard water.* Choice of amber color with no odor, or light green or pink with lemon odor when specified.

- Rich, active suds that grease can't kill.
- Cleans equally well in hard, soft, hot or cold water.
- Sparkling clear. • Highly viscous.
- Cleans and deodorizes.

For those who prefer formulating their own cleaner: Buy No. 80 Concentrate and cut it 60% with tap water. This produces an exact duplicate of No. 77 Detergent—simple, easy, and freight saving.

MAIL COUPON for free sample and price information

PECK'S PRODUCTS CO.
610 E. Clarence
St. Louis 15, Missouri

Send Free Sample and the "Price-Performance" story why Detergent No. 77 is such a solid sales builder.

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Firm_____

Street_____

City and Zone_____ State_____

SINCE 1918

Peck's
PRODUCTS COMPANY
Manufacturer of Soaps, Detergents, Sanitary Products

BREADWINNERS FOR THE SOAP, DETERGENT and COSMETIC MAKERS

Drew produces more than twenty fatty acids in volume. From this group, soap, detergent and cosmetic makers find four highly successful "breadwinners." They are:

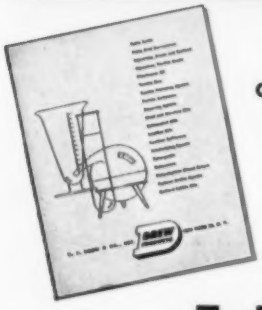
- **AB Distilled-Fractionated Coconut Fatty Acid (55-60% Lauric Acid)**
- **ABH Distilled-Fractionated and Hydrogenated Coconut Fatty Acid (55-60% Lauric Acid)**
- **ABL Distilled-Fractionated 70% Lauric Acid**
- **AAB Distilled-Fractionated 85-90% Lauric Acid**

The popularity of these acids is understandable. Their composition contains only those ingredients which make quality soaps, detergents and cosmetics. All are *distilled-fractionated* to improve composition, color and odor . . . all have excellent long-lasting color and odor stability . . . all have a high saponifiable matter and a low degree of unsaturation. Wecoline A, whole coconut fatty acids, is also widely used by soap makers wherever selective fractionation is not required.

If you are not now using these Drew Fatty Acids, you will want to investigate.

APPROXIMATE CHEMICAL DATA

PRODUCT	TYPE	FFA	TITRE °C	IODINE VALUE	ACID VALUE	SAP VALUE	COLOR
AB	Distilled-Fractionated Coconut Fatty Acid	126-132	24-28	8-16	251-263	251-263	20.0/3.0
AAB	85-90% Lauric Acid	139-144	37.0 Min.	3.0 Max.	277-287	277-287	15.0/2.0
ABL	70% Lauric Acid	138-141	30.0 Min.	5.0 Max.	275-281	275-281	20.0/3.0
ABH	Distilled-Fractionated Hydrogenated Coconut Fatty Acid	126-132	29	3.0 Max.	251-263	251-263	15.0/2.0
AAAR	Distilled Coconut Fatty Acids	116-126	30.0 Max.	14-22	232-253	232-253	35.0/5.0



DISTILLED AND FRACTIONATED FATTY ACIDS

COCONUT LAURIC CAPRIC CAPRYLIC WHOLE COCONUT (not fractionated)
OLEIC STEARIC SOYA LINSEED COTTONSEED MIXED VEGETABLE

Write for reference booklet "Drew Fatty Acids"

TECHNICAL PRODUCTS DIVISION

E. F. DREW & CO., INC.
15 EAST 26th STREET, NEW YORK 10, N. Y.
CHICAGO PHILADELPHIA BOSTON

DREW PRODUCTS

in insecticidal, fungicidal and herbicidal sprays

to really make a killing

there's nothing like Nacconol*

as the wetting agent

For a low cost wetting agent that vastly improves the emulsifying, spreading and sticking properties of sprays—there's nothing like NACCONOL. You keep costs low and you boost the killing power of the toxic agents in your formula.

As little as ¼% to 1% NACCONOL is all you need add to wettable DDT; BHC; 2,4-D; Chlordane, Sulfur and similar products and mixtures. Results are instantly observable in increased coverage and wetting which means a better kill.

Flake, powder or bead form—all rapidly soluble in cold water at any pH. For samples, prices and suggestions on formulations, write or phone our nearest office.

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ALLIED CHEMICAL & DYE CORPORATION

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Boston 14, Mass., 150 Causeway St.	CApitol 7-0490	Richmond 19, Va., 8 North Fifth St.	Richmond 2-1930
Providence 3, R.I., 15 Westminster St.	DExter 1-3008	Columbus, Ga., Columbus Interstate Bldg.	Columbus 3-1029
Philadelphia 6, Pa., 200-204 S. Front St.	LOmbard 3-6382	Greensboro, N.C., Jefferson Standard Bldg.	GReensboro 2-2519
San Francisco 5, Cal., 517 Howard St.	SUtter 1-7507	Chattanooga 2, Tenn., James Building	CHattanooga 6-6347
Portland 9, Ore., 730 West Burnside St.	Beacon 1853	Atlanta 2, Ga., 254 E. Paces Ferry Rd.	CYpress 2821
Chicago 54, Ill., The Merchandise Mart	SUperior 7-3387	New Orleans 18, La., 714 Carondelet Building	Raymond 7228
Charlotte, 1 N.C., 201-203 West First St.	CHarlotte 3-9221	Toronto 2, Canada, 137-143 Wellington St. W.	Empire 4-8495

*Reg. U.S. Pat. Off.

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Use WASHBURN CONCENTRATED SEAL AND FINISH

Yes, sir . . . average users of Washburn Concentrated Seal and Finish easily save $1000 a year. Buying in *concentrated* form, you save manufacturers' profits, warehouse storage, and inventory dollars. Here is an ideal BASE material, to be used both as a penetrating seal and as a surface seal . . . an idea pioneered by us. You simply reduce this concentrate with 49 gravity mineral spirits according to the solids percentage desired.

Keep a drum of Washburn Concentrated Seal and Finish on a rack next to a drum of mineral spirits. You can then easily fill your own containers in the proportions desired. Thus, you get QUALITY products at LOWEST POSSIBLE COST . . . with less storage space, lower inventory investment.

Write for Samples,

Specifications and Formulation Instructions

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Creative Perfumery

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Creative Perfumery is the art and science of producing the correct, the perfect fragrance for any given product. More . . . **Creative Perfumery** is the dynamics of Fragrance applied to modern merchandising for easier selling . . . for more satisfied customers. With original notes, subtle compositions and imaginative harmonies **D&O Creative Perfumery** can become a compelling and successful factor in your Sales picture. Consult D&O

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look at all the products made with Soya Bean Fatty Acids

If you use soya fatty acids in *any* of these applications, you want the unmatched quality and uniformity provided by *Gross'* Soya Fatty Acids.

Through the employment of special techniques and specially designed equipment, Gross can easily meet the demands of alkyd resin and other manufacturers for minimum color and chemical change under heat.

Send for samples and our booklet "Fatty Acids in Modern Industry." You'll agree that our products live up to the promises made for them.

A. GROSS & COMPANY

MANUFACTURERS SINCE 1837

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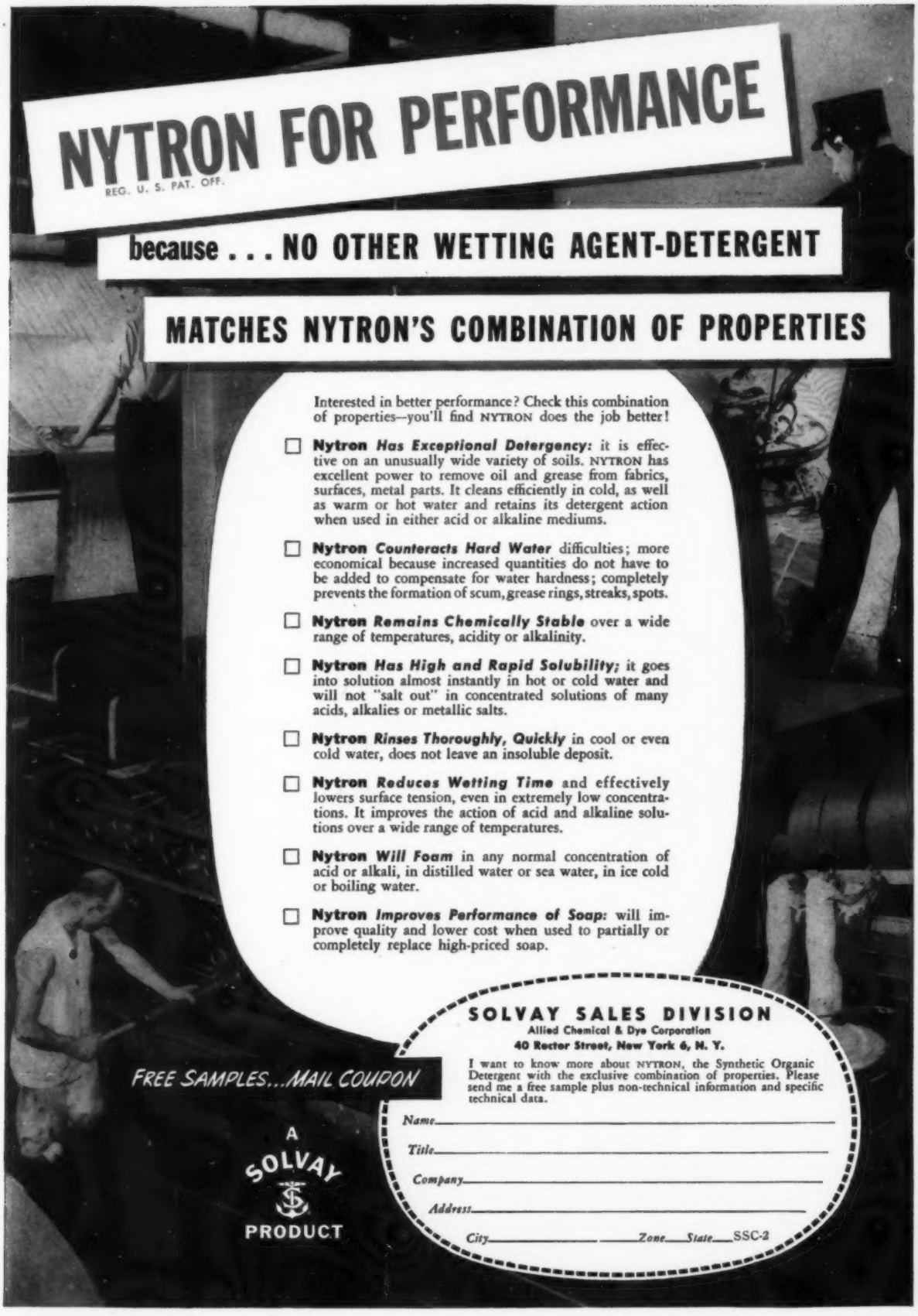
FACTORY: NEWARK, N.J.

295 MADISON AVE. • **NEW YORK 17, N. Y.**

Factory: NEWARK, N. J. ***Distributors in Principal Cities***


NYTRON FOR PERFORMANCE
REG. U. S. PAT. OFF.
because . . . NO OTHER WETTING AGENT-DETERGENT
MATCHES NYTRON'S COMBINATION OF PROPERTIES
Interested in better performance? Check this combination of properties—you'll find NYTRON does the job better!
☐ Nytron Has Exceptional Detergency: it is effective on an unusually wide variety of soils. NYTRON has excellent power to remove oil and grease from fabrics, surfaces, metal parts. It cleans efficiently in cold, as well as warm or hot water and retains its detergent action when used in either acid or alkaline mediums.
☐ Nytron Counteracts Hard Water difficulties; more economical because increased quantities do not have to be added to compensate for water hardness; completely prevents the formation of scum, grease rings, streaks, spots.
☐ Nytron Remains Chemically Stable over a wide range of temperatures, acidity or alkalinity.
☐ Nytron Has High and Rapid Solubility; it goes into solution almost instantly in hot or cold water and will not "salt out" in concentrated solutions of many acids, alkalies or metallic salts.
☐ Nytron Rinses Thoroughly, Quickly in cool or even cold water, does not leave an insoluble deposit.
☐ Nytron Reduces Wetting Time and effectively lowers surface tension, even in extremely low concentrations. It improves the action of acid and alkaline solutions over a wide range of temperatures.
☐ Nytron Will Foam in any normal concentration of acid or alkali, in distilled water or sea water, in ice cold or boiling water.
☐ Nytron Improves Performance of Soap: will improve quality and lower cost when used to partially or completely replace high-priced soap.
FREE SAMPLES...MAIL COUPON
A SOLVAY PRODUCT
SOLVAY SALES DIVISION
Allied Chemical & Dye Corporation
40 Rector Street, New York 6, N. Y.
I want to know more about NYTRON, the Synthetic Organic Detergent with the exclusive combination of properties. Please send me a free sample plus non-technical information and specific technical data.
Name
Title
Company
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EASIER TO WASH WITH !

"Now, whites really come out whites with CMC-CT laundry size . . . and in less time"

EASIER TO IRON WITH !

"Wash doesn't stick to the press anymore with this CMC-CT size . . . and I can handle more work"

EASIER TO SELL WITH !

"My white shirts now feel and look like new . . . no more knife-like edges on my collars and cuffs"

Laundry operators can profit by using CMC-CT either as a size or as a washing aid. A little CMC-CT greatly improves both the detergency and whiteness retention properties of soaps and detergents. See how CMC-CT can help solve your washing and sizing problems. Write for technical details and testing sample.

HERCULES POWDER COMPANY
INCORPORATED
Cellulose Products Department
961 Market Street, Wilmington, Delaware

HERCULES®

CMC-CT

CM52-1

. . . in brief

as the editor sees it

FAT MARKET SAGS . . . With the greatest production of domestic fats and oils in history, a total of some twelve-and-a-half billion pounds, leaning heavily on prices, a sagging market is no surprise. Lower soap prices are the inevitable result of lower fat prices, both standing substantially under recently lowered OPS ceilings. Significant is the current relationship between soap and detergent prices. Soaps on a comparable basis are cheaper than detergents, reversing the price relationship which has existed for some time, and substantially sharpening the competitive situation between the two groups of products. Whether synthetic detergent prices will be revamped to meet stronger soap competition remains to be seen.

PENALTY FOR PROGRESS . . . Hearings on the Gillette Bills, S-343 and S-344, scheduled for Washington, February 11, once again were postponed. It will probably be April or May, if then, before hearings are held. Pre-hearing discussions continued to emphasize the lack of necessity for any such government regulation of soaps, detergents, and cleansers. As noted here before, if this legislation honestly is designed in the general public interest, we fail to see where or how. Component labeling of these products could only be meaningless to consumers. Inclusion of soaps under the Food, Drug & Cosmetic Act was thrashed out fully in original hearings on this law, and they were purposely and specifically omitted.

The original purpose ostensibly of these bills when first drawn up and discussed here at length almost two years ago was to stymie the advance of synthetic detergents and to encourage wider use of soaps based on fats, the products of American farms and ranches. Detergents were blamed for the heavy surpluses of tallow and grease. The real cause according to USDA experts is overproduction. So, to make way for greater soap use, detergents are to be penalized. Scientific progress is to be halted by legislation. And this is America, year 1952, home of the free, bulwark of democracy, etc.

HAND SOAP CANS . . . Cans for hand soaps have been moved up to one hundred per cent quotas by NPA, based on 1949-50 figures. The appeal of the hand soap manufacturers for an increased quota was based chiefly on cleanliness appeal and the prevention of industrial dermatitis. Inasmuch as all hand soaps, and in this case particularly the hand soaps packed in metal cans, are held to be vitally necessary to keep down skin troubles among workers, — the single largest incapacitating factor among industrial diseases, — NPA has reclassified them under Group I in M-25 along with glycerine, and the antibiotics and other drugs. As such, they again are entitled to one hundred per cent of can quotas. These CMP regulations make strange bedfellows at times.

COUPON CONTROLS? . . . A tendency is noted among some detergent and soap manufacturers to reduce and control certain aspects of couponing operations. To keep "coupon brokers" and other chiselers out of the picture, marketers are checking coupon redemption more closely, mostly by having coupons redeemed directly by the manufacturer. Maybe the plan will work, and then again maybe not. Unless coupon redemption is made easy for the consumer and the dealer, coupon effectiveness as a sales stimulant is usually reduced.

Coupons of higher value on larger quantities of soaps and cleansers which have recently made their appearance, notably a dollar coupon on a

full case of product, are another reflection of the current pressure to sell soap. Their sponsors are not so certain of the effects on retail markets and watch closely with fingers crossed. From here we also watch, wondering what will come next. Maybe everybody should call a halt at the moment, study the results of the 1951 scramble, and decide if after all they are worthwhile.

AEROSOL VALVES . . . Attention is focussed on the aerosol valve situation by a recent call for bids on two-and-a-half million standard insecticide aerosol packages for the armed services. The specification calls for a "permanently sealed" valve which, we understand, may tend to limit the types of valves which can be supplied. At the same time, the brass shortage via CMP controls threatens seriously to handicap aerosol output right at the time of greatest expansion. A fight for more brass for aerosol valves already is brewing in Washington. Chemical Specialties Manufacturers Association is leveling its guns in behalf of aerosols with emphasis on the public health angles of the situation.

SOAP COMPETITION . . . To acquaint the world with the keen competition which exists in and around the "soap business," one of the leading American soapers recently ran a large display advertisement in the *Wall Street Journal*. The advertisement pointed out that this competition is a good thing inasmuch as it stimulates product improvement and gives consumers ever greater value for their money. They also mention how their own products compete one against the other in the same market.

The idea of the advertisement is excellent and the copy well done. No fair-minded person can quarrel with the basic reasoning. But, right now we do not believe that other soapers, large or small, enjoy being reminded that the soap business is one of the most highly competitive in the world. They know it too well. What with business in the dumps and price cutting a not uncommon practice at the moment, most soapers wish they were in the fish, putty, or cheese trade and that their soap factories were in hell.

FLOOR WAX ASKS 90% . . . Floor waxes, polishes, liquid soaps, insecticides and certain other sanitation chemical specialties have tossed their hat into the Washington ring in the general tin can quota scramble. Bluntly and to the point, manufacturers of these products want their can quotas raised, — as of *now*. At present, their can allotments under M-25 stand at seventy per cent. The manufacturers are asking for ninety or one hundred per cent. Judging from their spirited and vociferous descent upon the powers that be in Washington, we would not be surprised to see NPA boost these quotas in the near future, especially since the steel and tin situations appear to be less critical than a few months back.

WAX TEST FEE . . . Interim specification 151-B for floor wax issued recently by the General Services Administration calls for a $100 fee each for testing advance samples so prospective bidders may have their materials placed on a "qualified products list." For duplicate private brands, the fee is $50 each. This idea of testing a sample of anything so suppliers may get their names on a list of qualified bidders is not new with government departments or elsewhere. But such does not alter the fact that the practice is faulty and without point. Only the goods *as delivered* actually count. Each delivery must be sampled and tested anyway, and either it does or does not meet the specification. So why a fancy fee for an advance test? Thirty years observation has convinced us that these "qualified list" schemes whether for government bidding or other purpose are basically unsound. Such plans may have certain points of convenience for the purchasing agency and simplify testing technique. Nevertheless, they violate the principle of competitive bidding on a specification product which is that every gallon, every pound of material *as delivered* must meet the specification or *be rejected*. And anybody who can deliver specification material should be allowed to bid, "qualified list" or no.

as the reader sees it . . .

Insecticide vaporizers

Editor:

Automatic and continuous control of flies and other indoor insects is receiving nationwide attention. The proven performance of the Aerovap System has established it as without compare for indoor fly control. Toxicological research that we have conducted has resulted in acceptance of Aerovap on official levels. . . . A number of "revolutionary" vaporizers have recently appeared on the market. They are all shapes and sizes, retailing from 5c less than the Aerovap device down to "2 for $1.95." In connection with these machines, it must be remembered that the dispenser of an economic poison is involved and the meticulous control of the vaporization rate should be inherently incorporated in the vaporizing design.

U. S. Patent No. 2,541,637 granted to American Aerovap, Inc., is entitled "Method of Vaporizing Lindane in Ventilated Rooms" and includes claims for a daily vaporization rate of Lindane within specified limits. We have already instituted patent infringment litigation to protect our costly research pioneering. We intend to prosecute vigorously all usurpers of our invention by whatever means are legally available to us.

The law interprets the user as being the infringer and the distributing and selling agency as a contributory infringer.

American Aerovap, Inc.
New York
D. H. Christopher,
Genl. Mgr.

Imitation is the sincerest form of flattery. But where a product or device is patented, such imitation often can prove expensive, — for the infringer as well as the patent owner. Lawyers cost money no matter how you employ their services.—Ed.

Missing issues

Editor:

We did not receive our January issue of SOAP and finally called the post office. They advised us that these magazines were received in bad condition and had to be rewrapped by the Baltimore Post Office. . . . This may be the answer as to why some people did not receive their copies. . . . I am returning the wrapper received from the post office.

I want to congratulate you on the "new look" which SOAP took on with the January issue. It is certainly an improvement in the entire issue.

Melvin Fuld
Fuld Brothers, Inc.
Baltimore

Thank you, Mr. Fuld, for your comment on SOAP'S "new look." If any other readers are receiving their copies in bad condition, we would appreciate knowing it. We use heavy-duty kraft envelopes designed to avoid just such loss and damage.—Ed.

Likes New Look

Editor:

. . . I like your new cover layout for the January issue. . . . Much neater and gets to the point much faster. . . . Also I think switching the photograph and copy is an improvement. . . .

D. J. Walsh
Geigy Company, Inc.
New York

Thank you, Mr. Walsh. Thank you. Some of our friends like the new look, and some don't. For example, Jack Hoerner of Atlantic Refining told us right to our face that he didn't think it was so hot. But that's life. —Ed.

H.E.P. Likes It

Editor:

I have just received the January issue and wish to compliment you on the addition of "As the Reader Sees It." If handled properly, I believe this can be one of the best departments in any magazine and frankly it is one that I usually look at immediately upon receipt of a periodical.

Continental Filling Corp.
Danville, Ill.
H. E. Peterson, Vice-pres.
and Genl. Mgr.

Glad you like the idea, H.E.P. Begins to look already that we may have to plan an expansion program. —Ed.

(*Turn to Page 157*)

"Oh, this is just the prize, Mrs. McGuff!! If you want a bottle of the stuff, mail them the box top and nineteen cents."

—With apologies to Ray Hellee in *Collier's*.

Officers of the Association of American Soap & Glycerine Producers, Inc., elected at 25th annual meeting at Waldorf-Astoria Hotel, New York, last month, include: left to right: Jervis J. Babb, president of Lever Brothers Co., New York, vice-president for the east; Nils S. Dahl, general manager of John T. Stanley Co., New York, reelected treasurer; George A. Wrisley, vice-president of Allen B. Wrisley Co., Chicago, president; E. A. Moss, vice-president of Swift & Co., Chicago, vice-president for midwest, and Roy W. Peet, manager of AASGP, secretary. Absent is E. M. Finehout, president of Los Angeles Soap Co., far west vice-pres.

Soap Assn. Meets, Elects G.

GEORGE A. WRISLEY, vice-president of Allen B. Wrisley Co., Chicago, was elected president of the Association of American Soap & Glycerine Producers at the organization's 25th annual meeting, held at the Waldorf-Astoria Hotel, New York, January 22-23. He succeeds Neil H. McElroy, president of Procter & Gamble Co., Cincinnati, who served for two years. Mr. Wrisley, who is currently serving as Chief, Glycerine, Soap and Synthetic Detergents Section, Chemical Division, Rubber and Forest Products Bureau of the National Production Authority, U. S. Department of Commerce, served as president of the AASGP during 1947-48. In addition to serving on the association's executive committee, he has been active as chairman of the Cleanliness Promotion Committee.

Other highlights of the silver anniversary convention, which was the industry's largest meeting, with about 1031 registrations, were a prediction that annual production of synthetic detergents might reach two billion pounds by 1953 (1951 production was put at about a billion and a half pounds); previews of what may lie ahead in 1952 for soap raw materials and business generally; a discussion of the use of radio active materials in detergency research and a symposium on the use of ion exchange in the refining of glycerine.

Two new vice-presidents were elected at the meeting, which was spiced with over 60 door prizes, including 2 television sets. Jervis J. Babb, president of Lever Brothers Co., New York, was named vice-president for the east, succeeding E. H. Little, president of Colgate-Palmolive-Peet Co., E. A. Moss, vice-president of Swift & Co., Chicago, was chosen vice-president for the mid-west replacing E. W. Wilson, vice-president of Armour & Co., Chicago. E. M. Finehout, president of Los Angeles Soap Co., Los Angeles, was re-elected vice-president for the far west. Also elected to serve again were Nils S. Dahl, general manager of John T. Stanley Co., New York, as treasurer; Henry F. Elberfeld, Colgate-Palmolive-Peet Co., as assistant treasurer, and Roy W. Peet, association manager, secretary.

New directors include C. S. Campbell of J. B. Williams Co., Glastonbury, Conn.; Albert Haas of Newell-Gutradt Co., San Francisco, and George Parkhurst of Oronite Chemical Co., New York. They replace E. M. Maxwell of National Aniline Division of Allied Chemical & Dye Corp., New York, who resigned because of ill health; A. G. Peck, Peck's Products

Co., St. Louis and E. J. Sella of Great Stuff Products Co., West New York, N. J.

McElroy Reviews Year

THE meeting opened with a general session the morning of Jan. 22, with E. A. Moss of Swift & Co. presiding. He introduced Roy W. Peet, manager of the association, who outlined briefly the organization of the convention and the functioning of the various committees charged with running it. The formal opening of the 25th convention took place with the address of welcome and review of the year by Neil H. McElroy, president of Procter & Gamble Co., Cincinnati. He noted the fact that the convention was the 25th annual one, and that the growth of the association might be marked by the fact that there were over 1050 representatives of 215 organizations attending the convention.

"1951 was a rather mixed-up year," Mr. McElroy stated, adding that there was "much uncertainty at all times . . . caused by the so-called 'cold war' in Korea.

"One of the most serious and difficult problems from the point of view of company operation and management during the year 1951 has been the steady decline in the price of our principal raw materials," Mr. McElroy said. He cited the declines in prices of tallow from 17.1 cents a pound in January, 1951 to 7.5 cents in December and crude coconut oil averaging 19.1 cents, without the processing tax in January, 1951, falling to 11.5 cents for December last as examples of wide fluctuations that took place in the raw material market during 1951. It was a "period of declining raw material prices (which) has been historically a period of lowered profits in the soap industry," Mr. McElroy explained. "No matter how closely a manufacturer may try to hold his raw material purchases, he must carry some operating inventory. Finished goods prices, as usual, have decreased faster than average inventory costs, thereby creating a very difficult problem to management," Mr. McElroy said.

Turning to association affairs, Mr. McElroy mentioned the opening of membership to fatty acid producers and the setting up of a special fatty acid division within the organization. He also called attention to the retirement of Nellis Dalton, for many years association consultant on glycerine. Mr. McElroy also welcomed into the association E. Scott Pattison, recently appointed manager of the Glycerine and Fatty Acid Divisions.

Legal Problems in 1951

LEGAL and legislative problems encountered during 1951 were greater than might have been anticipated at the beginning of the year, Mr. McElroy said. Among those mentioned by him were the subpoenas of the Department of Justice calling for statistics and information on soaps, synthetic detergents and raw materials, some dating back 25 years. "Some compromises were effected in terms of the material which must be gathered and turned over to the Department of Justice, but even so, the work involved for the industry as a whole must be considered as staggering. What will come out of this is, of course, uncertain at this time," Mr. McElroy said.

The AASGP president also mentioned several bills introduced into the U. S. Senate designed to regulate soaps. These came out of hearings conducted by the Gillette sub-committee in 1950. "The record of the industry and its products through the years shows that there is no need to treat soaps and synthetics as harmful prod-

A.Wrisley

Left to right, below, Roy W. Peet, AASGP manager; E. F. Phelps, Jr., assistant director of Price Operations, and James A. Carey, Chief, Soap & Glycerine Section, both Office of Price Stabilization; T. J. Wood, vice-president of Procter & Gamble Co., Cincinnati, and James A. Reilly of Colgate - Palmolive - Peet Co., Jersey City.

ucts from which the consumer should be protected," Mr. McElroy declared.

"As a matter of fact," he said, the use of soaps and detergents in maintaining cleanliness has been a help to the morale and the health of the country. If careful investigation develops that protection should be given the public in the case of some unusual types of products in some particular application, proper protection should be provided, but such precautions should be restricted to the areas in which they are needed and not applied to the whole industry," he indicated.

Also mentioned by the Soap Association president was the Federal Trade Commission's investigation of the stock protection plan, which he said was a common practice of long standing not only in the soap industry but in the marketing of other types of consumer goods as well. The inquiry is still continuing.

The recommendation, after study, by the Southern Association of Weights and Measures Officials that bar soaps should be sold either by numerical count or by weight was called attention to by Mr. McElroy. The soap industry, he pointed out, has maintained that any attempt to force a method of sale of bar soaps by weight would result in a great deal of confusion and unfairness to manufacturers and to the public.

New Membership Directory

MR. McElroy also revealed that the soap association has just published a new directory of members, outlining regular activities of the organization. A retirement plan for AASGP employees will be put into effect as soon as approval can be received from the Wage Stabilization Board and the Treasury Department, Mr. McElroy said. He also told that the board of directors of the association had approved larger quarters for the AASGP, but that suitable space of the right size and within its budget has not as yet been located.

"In the year ahead, virtually all businesses will face the selective buying policies of a 'choosey' public," the next speaker, Walter E. Hoadley, Jr., economist with Armstrong Cork Co., Lancaster, Pa., stated. He added that 1952 will be another high year for business generally, as measured in dollar sales, but that the profit outlook is quite "spotty." Factors determining what happens to business this year Mr. Hoadley said include: 1.) the international situation; 2.) consumer and business spending psychology, 3.) government policies and expenditures, and 4.) the level of production attained in meeting both civilian and military demands.

Two important developments have taken place in the food store field in the past few years, P. J. Stomberg, vice-president of A. C. Nielsen Co., Chicago, reported in his paper on market research: "Household Soap Trends." These are: 1.) the adding of new lines, particularly drug products by grocery stores, and 2.) the growth in size and numbers of large food stores. A review of soap sales during 1951, as presented by Mr. Stomberg, begins on page 42 of this issue.

The Jan. 22 group luncheon, presided over by Jervis J. Babb of Lever Brothers, opened with a brief round-up of the day's news by radio newscaster Kenneth Banghart. He was followed by the luncheon's principal speaker, Dr. Howard A. Rusk, professor and chairman of the Department of Physical Medicine and Rehabilitation of New York University and associate editor of the *New York Times*. Dr. Rusk discussed rehabilitation of handicapped persons and training them for civilian occupations.

Concurrent sessions of the Glycerine and Fatty Acid Divisions, which met jointly and the Industrial Soap Division, were held the afternoon of Jan. 22. A panel discussion on "Ion Exchange Glycerine Refining," opened the meeting of the Glycerine and Fatty Acid Divisions. Participating in the panel were "A. C. Reents and D. M. Stromquist of Illinois Water Treatment Co., Rockford, Ill., C. W. Busby of the Los Angeles plant of Lever Brothers Co., New York, and W. F. Rahles, of Archer - Daniels - Midland Co., Minneapolis. They discussed the operation and design of the glycerine refining by ion exchange process as carried on at the new Los Angeles plant of Lever Brothers Co. Slides showing photographs of glycerine refining equipment at the new Lever plant and diagrammatic sketches of the operation of the process were shown. The Lever unit, which has been in operation for less than one year, is designed to produce 26,600 pounds of 82 per cent glycerine per day, it was revealed.

Fatty Acids in Defense

THE role of fatty acids in the current mobilization program was described by Robert F. Brown, chemical sales manager of Emery Industries, Inc., Cincinnati, in an address entitled: "How Fatty Acids Serve National Security." The presentation, illustrated with slides, disclosed in a general manner the application of fatty acids to such military needs as clothing, food, shelter, sanitation, medical and protective care, arms, ammunition, vehicles, aircraft, naval vessels and equipment, communication and natural resources. A category in which fatty acids are of major importance is sanitation. Here, fatty acids serve as components for hand soaps, germicidal soap, tooth paste and shaving cream for personal sanitation; for laundry soaps for laundering and disinfectants for treating facilities. Fatty acids are a major component of Napalm for gelled gasoline; of metal working and rust preventive compounds; metal polishes; special low titre soaps for fabric scouring, etc., Mr. Brown explained.

"Where Glycerine Stands in Today's Economy," by E. Scott Pattison, Glycerine and Fatty Acid Divisions manager of AASGP, the next paper presented at the session, begins on page 46 of this issue.

The need for finding methods of evaluating the quality of crude glycerine, rather than ways to determine the quantity of glycerine yield through the ash test, etc., was outlined in a paper: "Progress in Standards for Crude Glycerine" by W. A. Peterson of Colgate - Palmolive - Peet Co., Jersey City, N. J. It is not the quantity of organic residue that measures the quality of glycerine but the manner in which it affects the glycerine, Mr. Peterson said. He pointed out that today it is more important to have quantitative evaluation of glycerine because of the demand for the

C. P. quality and for competitive reasons. The grade of raw fats used has a very direct effect on the quality of glycerine produced, the speaker stated, adding that the manner of treating the spent lyes may have some effect on quality, and that degradation through fermentation is another factor. The problem faced by the refiner, he said, is that of seeking some test or method for evaluation. Mr. Peterson also outlined what the association's glycerine research committee intends to explore during the coming year.

Glycerine Research Program

THE "Glycerine Research Program," the next paper presented, by C. S. Miner, Jr., of Miner Laboratories, Chicago, reviewed the work of his organization during the past year. He pointed out that Miner Laboratories have six trained chemists specializing in glycerine. He said the work of his organization is planned by the glycerine research committee of AASGP. One of the problems now being studied is the evaluation of crude glycerine, Mr. Miner said. It has been studied by the industry for many years. Samples of crude have been asked for by Miner Laboratories and submitted by producers, the speaker said. He explained that his laboratories had been working on the project for the past six weeks.

Other work being conducted by Miner for the past 18 months is an investigation of the basic reaction between glycerine and fatty acids. Data on this project are being obtained by the use of new instruments and methods, according to Mr. Miner. He also reported on a small effort involving the analysis of four glycerine substitutes. All were sugar syrups, he stated.

In another study, reported on by the speaker, it was found that the use of the spectrophotometer to measure the color of U. S. P. glycerine was found to be no better than the human eye, which is subject, of course, to error.

Further investigation of the glycerine-rosin reaction in the production of ester gum has resulted in a fair amount of new chemical data and a few new techniques which may be useful to ester gum producers Mr. Miner reported. A paper is now in preparation on the subject.

A review of glycerine advertising activities by the association was presented by H. H. Besuden of Procter & Gamble Co., Cincinnati, chairman of the glycerine advertising and publicity committee. He pointed out that current advertising and publicity is designed to fight competition and to educate new personnel in glycerine consuming industries of the value of glycerine. He also said that annual production of glycerine is set at about 175,000,000 pounds a year, valued at $100,000,000.

Glycerine Advertising

ANOTHER speaker on glycerine advertising and promotion activities was J. C. Snape, vice-president of G. M. Basford Co., New York advertising and publicity firm. He reviewed the 1951 advertising campaign and showed some of the proposed new glycerine advertisements featuring the theme: "Nothing Takes the Place of Glycerine." The advertisements are illustrated with pictures of products in which glycerine is used, and the number of years the product has used glycerine is shown. The campaign is designed to fight competition and to sell new industry personnel on glycerine, since it was found that there has been a large turn-over of personnel in glycerine consuming industries.

The other session on the afternoon of Jan. 22 was that of the Indus-

(*Turn to Page* 157)

Addressing the joint meeting of the Fatty Acid and Glycerine Divisions is A. C. Reents of Illinois Water Treatment Co., Rockford, Ill. Seated left to right are: C. W. Busby of Lever Brothers Co., New York; W. F. Rahles of Archer-Daniels-Midland Co., Minneapolis, and D. M. Stromquist of Illinois Water Treatment Co. Panel discussed refining of glycerine by the ion exchange process.

GLYCERINE TODAY

AS many of you know, I am a relative newcomer to the glycerine business. As a seer or prophet, I wouldn't be very convincing, even if I tried. But there is one approach, I think, where a neophyte holds some advantage over an old-timer. That is, to look at glycerine from the frame of reference of similar industrial products; particularly, chemical products of comparable volume and range of application. You might call it: *analysis by difference.* The differences are both amazing and significant.

Here we have, as of 1951, a $100,000,000 business. Yet we cannot approach the biggest part of it by the typical evaluation of plant investment, operating cost, and overhead. To the extent that glycerine revenue is applied as an offset against the cost of fats and oils entering soap or fatty acid production, the profitability of glycerine production as such, cannot be determined. The usual standards for establishing a justifiable level of sales cost do not exist.

Some years ago, a great many firms—even in fields such as the textile industry—operated on what might be called a "providential" basis. A plant was built and started producing. Then, it was up to Providence to determine the scope and condition of the market, and the eventual returns or deficits.

Today, most of the products with which glycerine competes have gotten away from this "providential" approach. They assess the market before they build or produce. The costs of creating demand, like the costs of building the plant, are figured in the advance estimates of the break-even point. Profitability is evaluated on a long-term basis. A marketing policy that will encourage steady long-term usage takes precedence over immediate, "providential" returns.

This philosophy of building a market is most practical for integrated production operations with predictable costs. It requires relatively stable raw material costs. It is most difficult where two or more steps in production are in separate hands. Consider the producer of refined glycerine who must depend wholly or in part on purchases of crude. He cannot of himself maintain a long-term market-building philosophy if the movement of crude is determined by providential or opportunistic short-term objectives. The individual producer of crude is in pretty much the same boat. And there is no way at all to protect the consumer against himself if he competes with his own normal sources of supply by

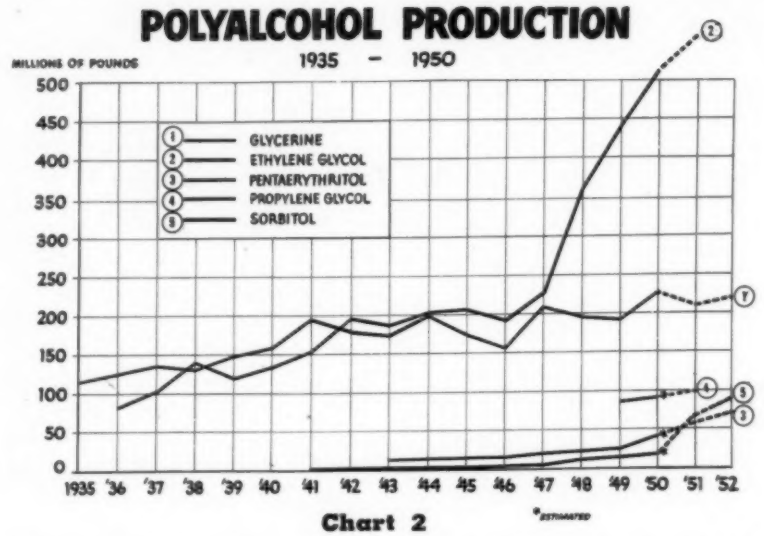
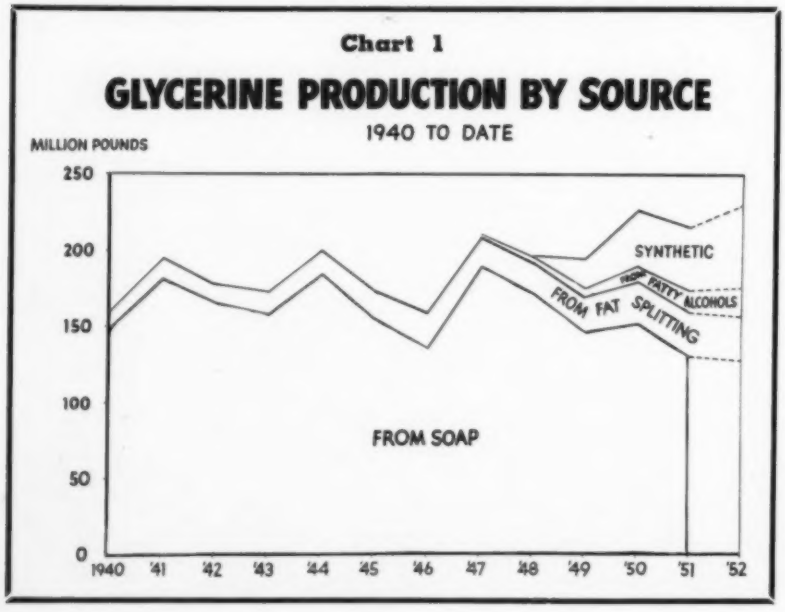


Chart 2



* Before 25th annual meeting Assn. of American Soap & Glycerine Porducers, New York, Jan. 22, 1951.

By E. Scott Pattison *

Manager, Glycerine and Fatty Acid Divisions, AASGP

"scare buying" of crude to be toll refined. Right after Korea, you will recall, this kind of thing forced the price of crude glycerine above the price of refined.

Scare buying however, seems reasonably far removed from the problems of 1952. The chief function of this phrase now is as a promotional weapon in the hands of producers of competitive materials. They say: "Look how synthetic detergents are cutting into soap. Glycerine production is surely on the skids. Can you afford to risk dependence on a declining-volume commodity? Wouldn't you do well to change your formulations now to a product you'll always be able to get in adequate quantities?

Now let's be frank about it—the long-term growth in cleanliness products overall is now synthetic detergent growth, and soap produced from fats and oils has suffered relatively. But as Chart I shows no decline of "scare" proportions in glycerine from fats and oils is shown or anticipated. And with the help of the Shell Chemical Corp., total glycerine production is likely to be as high or higher than before.

GLYCERINE DISAPPEARANCE vs. INDUSTRIAL PRODUCTION

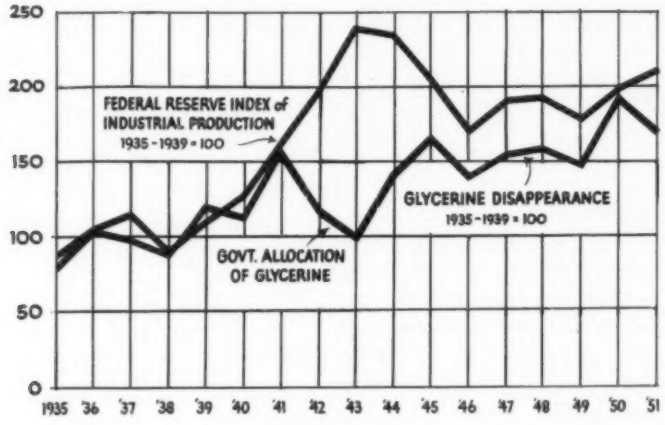

250
200
150
100
50
0
FEDERAL RESERVE INDEX of INDUSTRIAL PRODUCTION 1935-1939 = 100
GLYCERINE DISAPPEARANCE 1935-1939 = 100
GOVT. ALLOCATION OF GLYCERINE
1935 '36 '37 '38 '39 '40 '41 '42 '43 '44 '45 '46 '47 '48 '49 '50 '51

Chart 3

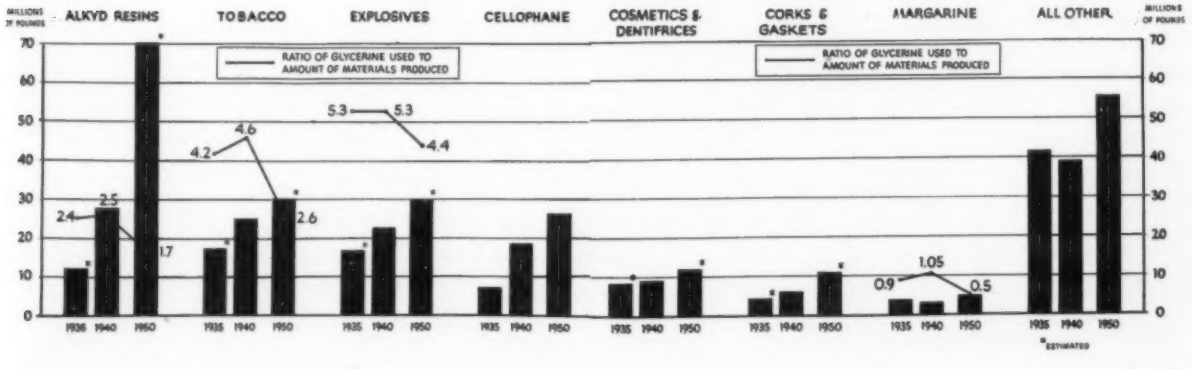
At levels in excess of 200,000,000 pounds per year, there is every reason to believe that our long-term problem will be one of defending and extending our markets. A "providential" philosophy cannot suffice, unless we are willing to admit that glycerine has no advantages over competitive materials except the persistence of its production in the face of oversupply. Or unless we look upon an all-out war as providential.

There is a language device initiated by producers of these competitive materials—all polyhydric alcohols. It tends to put glycerine in a generalized "polyalcohol" or "polyol" class, and to play down the individual and exceptional characteristics which glycerine alone possesses. It is nice to be part of a big thing. The polyol business, taken together, is now at a billion pound level. It is a growing, pushing, and presumably profitable business for all concerned, judging by the new capacity building or planned. Chart 2 gives the picture.

There are sound reasons why glycerine is technically, as well as commercially, the premium polyol, the Cadillac of this class of material. Some of this preference we know to be inherent—in the balance of properties which glycerine alone possesses. Some, however, are a matter of long-term acceptance arising from market-building activities which this group has maintained, in spite of difficulties, for some 20 years. So far as glycerine dis-

Chart 4

GLYCERINE END USE



appearance is concerned, it is interesting to see the rather close correlation with the growth of industrial production generally, except in the abnormal World War II period. (Chart 3) The divergence in 1951 could increase. We will have to keep concentrating on product improvement, on application aid, and on educational effort, on a level at least as effective as those who are now pushing the other polyols.

Growing Markets

As an example, let us take a look at several of the important markets in which glycerine usage has been growing over the last 15 years. (Chart 4) We have chalked up increasing output with the rise in output of the consuming industries, but we have slipped relatively in a few significant places. Perhaps the most critical spot, right now, is the alkyd resin market. The protective coating market for alkyds—despite short-range ups and downs—is regarded as a growing one, come war or peace. An important producer of phthalic anhydride estimates alkyd production at 370 million pounds in 1951, increasing to 400 million in 1952, 448 in 1953, and close to 500 million in 1954.

Right now, glycerine is being challenged as the Cadillac of polyols for alkyd resin manufacture. In 1952, for example, pentaerythritol—so-called PE—will be up to 60 million pounds capacity at a 34c price or thereabouts. Today 80 per cent of it goes into these resins, either straight PE-phthalates, or combinations. It is understandable, but hardly comforting, to see the rate of increase in PE resins outstrip that of those based on glycerine. Luckily, where technologists responsible for quality have had the say, this shift has been limited to certain specialty resins.

As late as a year ago, too, we could regard sorbitol as a limited competitor in certain of the humectant fields such as toiletries and flavors. But expansion to 70,000,000 pounds annual capacity is changing the end-use pattern. According to the manufacturers' statements, strong penetration into the resin field is being achieved. Derivatives used as food emulsifiers present another strong challenge.

We have only to look at new capacity in the field of glycols generally to see the perils of the "overall polyol" point of view. In the face of present agitation concerning use of less-thoroughly-accepted "chemicals" in foods, glycerine and glycerides are in an unique position. All the toxicity tests currently being advocated were successfully met, in the case of glycerine 20 years or more ago. Basic acceptance goes deeper than tests, going back to a record of usage in home-made foods, and ranging from military combat rations to the *U. S. Pharmacoepia*. Other materials may be proved non-toxic in foods, but glycerine and glycerides are themselves nutrients . . . natural products of the metabolism of fats. When a product label reads "this product contains pure glycerine" it ought to be recognized as a mark of distinction—an indicant of premium ingredients.

Price Problems

So much for the "ought-to-be's." What about actualities! Let's face the fact that glycerine's volatile price pattern has created a public relations problem with purchasing agents, despite the laboratory man's preference which experience has confirmed. The effort to substitute always bears hardest on the leader. And it is certainly futile to fight a rearguard defense, as we might once have continued to do against a "natural" such as ethylene glycol for automotive anti-freeze.

Our job is to open new doors where the specific and exceptional characteristics of glycerine and glycerine only will pay off for the buyer. This means opening up more diverse, small-scale markets, probably producing a greater proportion of C.P. and water-white product. It means more sales organizations geared to selling a premium product, rather than a bulk product. It means more fully organized technical service assistance. The producers of refined glycerine can move in this direction, but not if a "providential" philosophy, pure and simple, motivates those who produce and offer crude. For one thing, product quality must start with the crude itself. Strict requirements as to color, odor and ash cannot practically be built back into a glycerine once off on the wrong foot.

And, despite all improvements in production techniques and sales organization it is going to cost money to defend a market, premium or otherwise. If we do nothing, this fee will still be paid—as a matter of seeming ill-fortune in the marketplace. Our industry, and all industry, will be better served if it be paid in advance to open new doors of greater usefulness for glycerine.

Time and again I have heard it said: "But of course, glycerine can always find a market." But there is a public responsibility, it seems to me, that any product derived from the good earth of American farms have its utility maximized. This means product-usage improvement. It means that we do not dissipate in some second-rate application a unique chemical structure which should be doing more for the public in some yet-to-be-discovered service. As we seek it out and develop and promote it, we will be benefiting both the user and ourselves.

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Short Course on Soap

A one week course covering processing and evaluation of soaps and synthetic detergents will be offered at Rutgers University, New Brunswick, N. J. from July 6th to 11th. The course is sponsored by the American Oil Chemists' Society. Dr. Foster D. Snell of Foster D. Snell Co., New York, is chairman of the committee on arrangements. There will be five speakers on each of the following days and their subjects will be:

July 7—Soap raw materials; July 8—Soap processing; July 9—Soap properties; July 10—Surfactants and synthetic detergents; July 11—Evaluation methods.

Inspection tours of typical plants are offered for four afternoons of the course.

The fee, which includes room and board from late Sunday through Friday p.m., is $90. Reservations may be made through the office of the American Oil Chemists Society at 35 East Wacker Drive, Chicago 1, and are limited to 200.

Chart 1

Chart 2

Household Soap Sales

By P. J. Stromberg *
A. C. Nielsen Company

DOLLAR sales of household soaps, as a result of reduced prices, dropped off in 1949, recovered somewhat in 1950 and increased in 1951 to a level slightly higher than in 1948. Household soaps, include package laundry soaps, package synthetic detergents including liquid type detergents, toilet soaps and floating soaps. Tonnage sales have increased above the 1948 level and in 1951, it is estimated, will be about 9% higher than in 1948. A decline occurred between 1950 and 1951 in tonnage volume largely reflecting abnormally heavy consumer buying after the outbreak of the Korean War and at the time Red China entered the war. Consumers apparently hoarded soaps at those times anticipating shortages and/or higher prices.

Trends in food store sales of all commodities and of household soaps are compared on chart 1. Across the upper half of chart 1 we have shown dollar sales of household soaps and of all food store commodities. After the 1949 drop, household soap dollar sales have trended upward in the same fashion as total food store dollar sales. Tonnage movement has been fairly comparable throughout, with household soaps achieving somewhat higher levels in 1950 and 1951. (Chart 2)

Chart 3 compares prices of soaps with over-all food prices In setting up this chart we have taken the regular sizes of the major brands of package laundry soaps, synthetic detergents and of toilet soaps. A composite consumer selling price has been determined for each of the two groups as of October 1, for 1948, 1949, 1950 and 1951. Using October 1, 1948 as a base, prices in the next three years have been expressed on an index basis for comparison with the Food Price Index of the Department of Labor. Note that prices declined between 1948 and 1949, soaps being off 18% and 17%, respectively, on package soaps and detergents, and on toilet soaps, and on all foods 5%. Package laundry soaps and synthetic detergents prices rose slightly in 1950 and still further in 1951 but ended up 10% under the 1948 level. Toilet soaps held at the 1949 level in 1950 and then came back up to a point 11% under 1948. Food prices dropping off

* Before 25th annual convention, Assn. Amer. Soap & Glycerine Producers, Inc., New York, January 22, 1952.

Chart 3

CONSUMER PRICES – HOUSEHOLD SOAPS
PACKAGED SOAPS & DETERGENTS (REG. SIZES-MAJOR BRANDS)
TOILET SOAPS (REG. SIZES-MAJOR BRANDS)
FOOD PRICE INDEX BUREAU OF LABOR STATISTICS
100 82 85 90
100 83 83 89
100 95 99 107
OCT 1 '48
OCT 1 '49
OCT 1 '50
OCT 1 '51
SEPT-OCT '48 Avg
SEPT-OCT '49 Avg
SEPT-OCT '50 Avg
SEPT-OCT '51 Avg

Chart 4

Chart 5

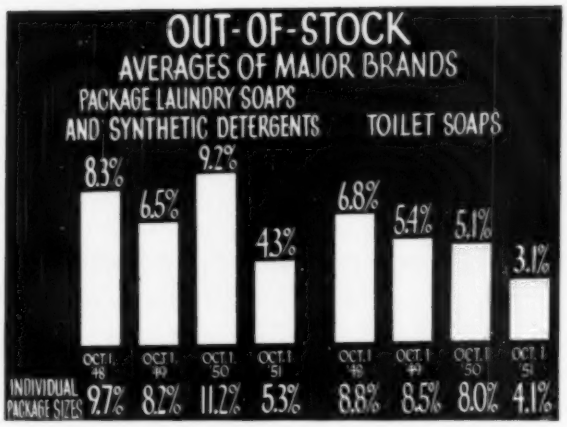

OUT-OF-STOCK
AVERAGES OF MAJOR BRANDS
PACKAGE LAUNDRY SOAPS AND SYNTHETIC DETERGENTS
TOILET SOAPS
8.3% 6.5% 9.2% 4.3%
6.8% 5.4% 5.1% 3.1%
OCT. 1 '48 OCT. 1 '49 OCT. 1 '50 OCT. 1 '51
OCT. 1 '48 OCT. 1 '49 OCT. 1 '50 OCT. 1 '51
INDIVIDUAL PACKAGE SIZES 9.7% 8.2% 11.2% 5.3% 8.8% 8.5% 8.0% 4.1%

Chart 6

less in 1949, have increased faster than soaps since that time and currently are 7% above 1948. Consumers are faring better price-wise on soaps than on the average food commodity.

Chart 4, Soap Sales and Advertising, shows dollar sales, tonnage sales and measurable media advertising expenditures for household soaps during the last four years. Advertising includes expenditures in magazines, in newspapers published in cities over 100,000, and in network radio and network television.

After holding even in 1949 and 1950 while tonnage sales were expanding rather appreciably, advertising in the four media covered increased sharply in 1951. Network television accounted for a substantial portion of this increase with a number of products going into this medium in the latter part of 1950. Rate increases were another major factor that brought about higher dollar expenditures in 1951.

Tonnage sales of soap (Chart 5, Soap Sales and Inventories), are shown on the left side of this chart for comparison with average retail inventories during the years 1948 through 1951. Despite higher sales in 1949 and 1950, retailers operated with lower retail inventories and, as a result, stock-turn increased from 6.6 in 1948 to 7.7 in 1949 and 7.9 in 1950. The showing for 1950 represents, however, a composite of low supplies prior to the start of the Korean War and greatly increased stocks thereafter. This is shown in the comparison of October 1 stocks tabulated in the bars which indicate that stocks on October 1, 1950 were at an index of 111 in terms of the 1948 base. As was true for the "short" supply commodities which we looked at previously, retail inventories of household soaps were built up rapidly in late 1950 and early 1951 reaching a peak on April 1, 1951. Since that time a rather substantial liquidation has occurred bringing inventories back down to year-ago levels. As of October 1, 1951 the index stood at 108.

Out-of-stock (Chart 6) on household soaps was unusually low as of October 1, 1951 compared with showings for the three previous years. The average for major brands of package laundry soaps and synthetic detergents was 4.3% as of October 1, 1951, less than half the year-ago average. Last year's showing reflected abnormal consumer buying in some areas occasioned by the outbreak of the Korean War plus maldistribution of inventories. Individual packages showed a slightly higher out-of-stock percentage than brand totals but here again the figure was unusually low. Toilet soaps also showed definite improvement in out-of-stock ratios at 3.1% for brand totals and 4.1% for individual sizes.

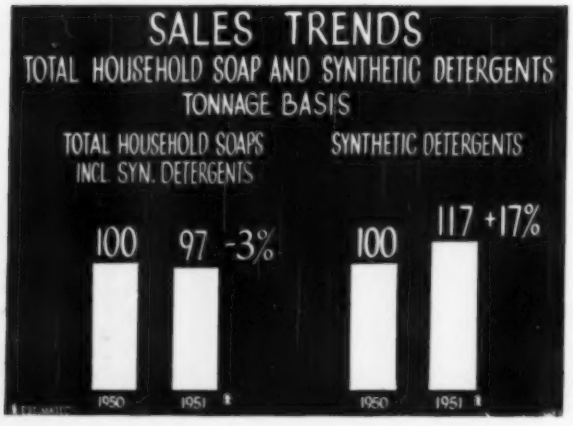


Chart 7

Synthetics Grew in '51

SYNTHETIC detergents continued to progress in 1951 faster than soaps as is shown on the Chart 7. While total household soaps were declining from 1950 to 1951, synthetic detergents reported a 17% increase in tonnage sales.

On Chicago Transit Bd.

John Holmes, president of Swift & Co., Chicago, was recently appointed a member of the Board of Trustees of the Chicago Traction Authority, which operates the municipally owned traction system. The appointment, endorsed by the city council, is for seven years, with annual salary of $15,000.

New Dentifrices...

Although the trend now seems to be shifting toward therapeutic type products, including those containing quaternaries, the familiar cleansing dentifrices continue to sell well

By Milton A. Lesser

PART II

THE antibacterial action of the quaternary ammonium compounds may also prove of value in dentifrice formulations. Burton, (37) an English investigator, has recently pointed out that, in view of their combined wetting, bactericidal and detergent potentialities, the germicidal cationics may prove useful in oral therapy and prophylaxis. He worked with a trimethyl long-chain alkyl ammonium bromide of at least 80 per cent purity. Burton refers to this quaternary as cetrimide, but it is commercially available in England as Cetavlon. The following formula is given to illustrate its use in a tooth paste:

Methyl cellulose, 4%	36.0 cc.
Water	16.0 cc.
Precipitated chalk	16.0 Gm.
Magnesium carbonate, light	8.0 Gm.
Cetrimide	2.0 Gm.
Aniseed oil	1.0 cc.
Peppermint oil	1.0 cc.
Sodium saccharin	0.1 Gm.

Although this provides an excellent tooth paste, it leaves a noticeable and persistent bitter taste in the mouth, even with the strong flavor. Burton feels that if a tasteless nonionic detergent were available it could replace half the quaternary and thus markedly reduce the bitter taste. He suggests the use of a nonionic detergent as a flavor-dispersing aid in the following formula for a combined tooth powder and mouth wash:

Precipitated chalk	60.0 Gm.
Urea (100 mesh)	24.0 Gm.
Cetrimide	6.0 Gm.
Fruit flavor	3.0- 6.0 cc.
Nonionic detergent	0.5- 1.0 cc.
Sodium saccharin	0.15 Gm.

Of course American investigators have not overlooked the potentialities of the quaternaries. Thus, a few years ago, the literature of one manufacturer of these compounds carried the following formula for an antiseptic tooth paste:

	per cent
Quaternary ammonium compound (Hyamine 10-X crystals*)	0.25
Wetting agent (Triton X-100*)	1.00
Methyl cellulose, 4,000 cps.	0.70
Glycerine	8.00
Tricalcium phosphate	5.00
Calcium carbonate	43.00
Glycine	0.40
Oil of peppermint	0.02
Oil of cassia	0.02
Water	41.61

(* Rohm & Haas Co., Philadelphia, Pa.)

The same manufacturer also supplied a formula for an antiseptic tooth powder, as follows:

	per cent
Quaternary ammonium compound (Hyamine 10-X)	0.3
Wetting agent (Triton X-120)	4.0
Saccharin	0.4
Dicalcium phosphate	40.0
Calcium carbonate	54.5
Methyl salicylate	0.8

To round out the picture, a formula for a powered denture cleaner was also provided. One-half teaspoonful of the following preparation is added to a glass (8 ounces) of water for use:

	per cent
Hyamine 10-X crystals	2.5
Triton X-100	2.0
Tetra sodium pyrophosphate	95.5

Antibacterial Agents

THE potent antibacterial action of oxidizing substances has long been available in tooth powders made with sodium perborate. Although some authorities (38) feel that the daily use of dentifrices containing strong oxidizing agents is not warranted or desirable, there has been a constant search for water-free vehicles to permit the manufacture of stable, perborate-containing tooth pastes. (39) In a new approach to the problem, Smith (40) made use of polyethylene glycols as vehicles for the active agent. An example of such utility is offered in the following formula for a sodium perborate tooth paste:

	per cent
Sodium perborate tetrahydrate	25.0
Calcium carbonate	35.0
Polyethylene glycol (1500)	6.0
Polyethylene glycol (300)	32.0

Vanillin	0.2
Flavor	1.8

More recently, in describing dentifrices suitable for removing dental plaques, Kraus (41) advised that stable dentifrices could be made by using water-free glycerine, liquid petrolatum, alcohol or other non-aqueous vehicle as the carrier for the active agents. The active agents in these dentifrices are mixtures of lactates and per-compounds; the latter including sodium perborate, magnesium peroxide and calcium peroxide.

According to a news note, (42) one of the larger dentifrice manufacturers is in the process of developing a frothing, oxygen-releasing tooth paste. However, certain problems of compatability must still be solved.

While still discussing the therapeutic dentifrices, mention should be made of a product containing sodium undecylenate as the active ingredient. (24, 25) With limited distribution in the New York metropolitan area, this dentifrice, called "Cyl-dent," is now being investigated for its anti-caries action. It is said to be effective for whitening the teeth and removing stains, such as those of tobacco.

Standard Products Selling

ALTHOUGH the trend seems to be shifting toward the therapeutic types of products, the familiar cleansing dentifrices continue to do very well, both from the standpoint of sales and new developments. Indeed, there is growing recognition of the fact that properly used cleansing dentifrices, based on the action of detergents and abrasives, can contribute very materially to the prevention of dental caries.

As remarked by James, (35) there is considerable evidence that mechanical cleansing of the teeth will reduce the number of bacteria in the mouth and on the teeth. It also appears that most of the damage from bacterially-produced acids occurs within the first 15 minutes after the eating of carbohydrates. (43) Taking these facts together, many dentists have come to the conclusion that the teeth should be brushed after every meal. (31)

Although neutral white soap remains most important cleansing agent, syndet use grows.

These views are substantiated by studies such as those of Haggard and Greenberg (44) at Yale University. They found, for example, that if the teeth and mouth were brushed thoroughly and washed after eating candy, the sugar concentration in the saliva was immediately brought down to a zero level.

Particularly indicative are the cooperative studies reported by Fosdick (45) and covering a total of 946 students at six colleges. During the two-year test period, the 423 students serving as the control group followed the ordinary routine, which generally consisted of brushing the teeth morning and night. The 523 students comprising the test group were instructed to brush their teeth thoroughly within ten minutes after each ingestion of food or sweets and, when brushing was impossible, to rinse the mouth thoroughly with water. They were told to brush their teeth with an accepted technique and to rinse the dentifrice from the mouth immediately after brushing. The dentifrice, a neutral tooth paste, consisted of dicalcium phosphate as the abrasive, a sulfated glyceride of coconut oil fatty acids as the detergent, plus glycerine, gums, flavor and water.

At the end of one year's test, the experimental group developed an average of only 0.8 cavities per person as against 2.2 new carious surfaces for those in the control group. This represented a 63 per cent reduction in caries activity for the after-meal tooth brushers as compared with those using the general routine. At the end of two years it was evident that "the reduction in carious activity by purely oral hygiene procedures is real and that actual reduction is probably in the neighborhood of between 50 and 60 per cent."

In a consideration (46) of these findings, it was pointed out that any claims for therapeutically active dentifrices which involve a technique of after-meal brushing of the teeth will need clinical successes in excess of 50 per cent. It is noted that in many cases this has not been forthcoming.

Of course, the implications of these findings are being brought to the attention of the dentifrice-buying public. This is evident, for example, in articles such as appeared in the July, 1950 issue of *Reader's Digest*. In the opinion of an authority like Bigler, (3) instilling the habit of brushing the teeth after each meal should begin early in childhood. He advises that the use of a suitable toothbrush and a pleasant tasting dentifrice will help to make the habit a pleasurable one.

Cleansing Ingredients

THOUGH perhaps not as spectacular as with therapeutic dentifrices, there has been steady development in ingredients for cleansing dentifrices. Although neutral white soap remains the most important cleansing ingredient of tooth pastes and powders, the synthetic surface active agents also find employment in dentifrice formulations. For example, sodium lauryl sulfate is employed as a detergent in such products, while sulfocolaurate is used in dentifrices as a foaming agent. (47) Detergents that are particularly suitable for use in dentifrices have also been developed. (48)

In a recent symposium on dentifrices and oral hygiene, it was noted (49) that sodium ricinoleate is a valuable addition to the list of more modern dentifrice ingredients. Not only does it exert a detergent action but it also reduces surface tension in the fluid of the oral cavity; creating a state that is unfavorable to bacterial growth. Of related interest is Rossi's (50) observation that the daily use of preparations containing sodium sulforicinoleate results in the elimination of scaly deposits on teeth. He presented several formulas

illustrating the use of this agent; the following being one that is currently being pushed in the United States:

	per cent
Soap powder, USP	5
Sodium sulforicinoleate	5
Calcium carbonate, precipitated	45
Basic magnesium carbonate (magnesia alba)	25
Sodium hexametaphosphate	2
Water, flavor and color	sufficient

As already noted, a mild abrasive is also an essential ingredient of cleansing dentifrices. Improved materials of this class are also being developed. It has been suggested, (51) for example, that the polishing component of a tooth paste may consist of lactose or lactosates, such as calcium lactosate. In the patent granted to Tainter and Hinkel, (52) it is claimed that microcrystalline aluminum hydroxide shows exceptional properties with respect to cleaning, scouring, polishing and restoring natural luster to the teeth without damage to the tooth enamel or structure.

Other ingredients have been developed to improve the characteristics of dentifrices or facilitate their manufacture. Thus, Connelly (53) has found that the incorporation of a material like calcium glycerophosphate cuts down on the deaeration time required prior to tubing sudsing dental creams. Such rapid deaeration not only speeds production but also reduces manufacturing cost. In another instance, Musher (54) recommends the use of a special oat fraction in tooth paste formulation to serve both as a binder and as a foaming agent. Also interesting is a transparent tooth paste developed abroad. According to the patent, (55) hemicellulose is treated with soaking and solubilizing materials, such as alcohol, glycerine and water, to form a gel. This is warmed with solutions of carbohydrates and sulfonated fatty acids to give a clear product.

Flavor, always an important factor in dentifrice formulation, is also coming in for new attention. Klippert (56) has suggested the use of sodium methyl salicylate to impart the desired wintergreen-type flavor to tooth powders. The advantage of this flavoring material is that it does not evaporate during storage, but in the mouth it is rapidly converted to free methyl salicylate which imparts the desirable fresh wintergreen taste.

Particularly noteworthy is the increased emphasis in advertising and other promotions on the flavor and refreshing taste of dentifrices. This trend is seen even in the case of ammoniated dentifrices. (25) Also indicative is the use of two new flavoring compounds, strawberry and "bubblegum", in tooth pastes designed specifically for the juvenile market. According to early reports, (57) the children have shown ready acceptance of these products.

Conclusion

Bibliography

3) Bigler, J. A.: *Postgrad. Med.* 9: 333, 1951
24) Anon.: *Chem. Week* 69:33, Sept. 8, 1951
25) Anon.: *Tide*, Aug. 3, 1951, p. 15
31) Ostrander, F. D., et al: *J. Am. Dent. Assoc.*, 36:9, 1948
35) James, K. M.; *Canad. Pharm. J.* 83:890, 1950
37) Burton, D. N.: *Manuf. Chem.* 22: 267, 1951
38) Council on Dental Therapeutics, *J. Am. Dent. Assoc.* 34:703, 1947
39) Anon.: *Schimmel Briefs*, No. 193, April, 1951
40) Smith, N.: U.S. Pat. 2,501,145, 1950
41) Kraus, A.: U.S. Pat. 2,554,464, 1951
42) Anon.: *Chem. Week* 69:37, Oct. 20, 1951
43) Anon.: "Dental Caries: Prevention and Control," Chicago, American Dental Assoc., 1949, 11 pp.
44) Haggard, H. W. & Greenberg, L. A.: Dent. Survey (through) *Science News Letter* 56:376, 1949
45) Fosdick, L. S.: *J. Am. Dent. Assoc.* 40:133, 1950
46) Anon.: *Manuf. Chem.* 22:281, 1951
47) Council on Dental Therapeutics: "Accepted Dental Remedies," Chicago, American Dental Assoc., 1950, pp. 106-9
48) Anon.: *Perf. & Essent. Oil Rec.* 38:379, 1947
49) "Medico - Pharmacist": *Retail Chem.* 22:51, Sept. 1951
50) Rossi, R.: *Alchimist*, 3:173, 1949
51) Cosmetische Fabriek "Prodenta": Dutch Pat. 62,220, 1948
52) Tainter, M. L. & Hinkel, E. T.: U.S. Pat. 2,550,207, 1951
53) Connelly, R. V.: U.S. Pat. 2,556,-959, 1951
54) Musher, S.: U.S. Pat. 2,436,818, 1948
55) Hollub, J.: Swiss Pat. 267,524, 1950
56) Klippert, A. A.: U.S. Pat. 2,519,-665, 1950
57) Anon.: *Tide*, Oct. 27, 1950, p. 13

New flavors (particularly for the juvenile market) and colors are newest innovations.

Urge Local Soap Buying

A request that at least one million pounds of soap, to be dispensed through the Army Quartermaster Corp's Auburn (Wash.) General Depot be purchased from three northwest soap companies was made recently by Seattle labor union groups. The Corps is buying 28,542,000 pounds of soap, some two million pounds of which is to be dispensed through a depot in Salt Lake City in addition to the million pounds handed at Auburn.

Purchase of the soap from northwestern soap makers was urged by the president of the Washington State Federation of Labor (A.F. of L.) and the business representative of Local 186, Packinghouse Workers' Union (A.F. of L.) as well as Congressman Hugh B. Mitchell. The union spokesmen said that soap makers in the northwest should not be placed at a disadvantage in bidding to supply soap because the production costs in that area might be slightly higher than elsewhere. One said that "we may be farther removed from the sources of supply for manufacturing soap, but we are closer to delivery points."

The other union leader said that in August of 1951 the Quartermaster Corps had made a survey of soap-manufacturing facilities in the Seattle area. Soap plants there offered to make available 50 per cent of their facilities for meeting military needs. In spite of this, it was stated, the Quartermaster Corps recently let a bid of 19,000,000 pounds of soap to an Eastern firm. About 580,000 pounds of the soap are being brought to Auburn and 1,354,000 pounds are being sent to Salt Lake City.

New "Sanitreet" liquid sweeping compound (upper left) announced recently by Chemical Service Co. of Baltimore. May be used on a wide range of floor surfaces, and on walls, woodwork and furniture. It is poured into mop before being applied. Recommended dilution is one part of "Sanitreet" to four parts of water.

New packaging for "Kreml" hair tonic (top center), made by R. B. Semler, Inc., New Canaan, Conn., features easy-to-read reverse of name. New color scheme of label is yellow and black.

"Presto-Lather Shave Cream" to retail for 50 cents and shave lotion in a flask bottle to retail for 59 cents will be introduced nationally in March under the "Seaforth" trade name by A. D. McKelvy Co., New York. At the same time it was announced that "Seaforth Veladron Brushless Shave" in a new package to retail for 50 cents will also be featured in advertising launching the products.

A new shoe polish in a new can design was announced recently by Griffin Mfg. Co., New York. New Griffin "Boot Polish" features a stain type, microsheen finish, which is said to last longer. In six colors: brown, tan, mahogany, cordovan, ox-blood and black, the new polish retails for 25 cents. Cans come packed one dozen to a counter display carton.

Lower left is new "Clo" shampoo of Bymart-Tintair Co., Newark, N. J. Product, which contains chlorophyll, is being introduced to drug and department store market following a series of nation-wide consumer tests. "Clo" retails for $1.00 in six ounce bottle, packaged in green and white box. Shampoo is made in three types: oily, dry and normal. It contains hexachlorophene.

"Squeeze 'N Wash" plastic bottle with molded rubber brush that slips over top (bottom right) was announced recently by Anro Products Co., Chicago. Plastic bottle by Elmer E. Mills Corp., Chicago, is filled with measure of soap or detergent, to which water is added. Brush slips over top and by squeezing bottle detergent or soap is squirted out for cleaning dishes, upholstery, rugs, etc.

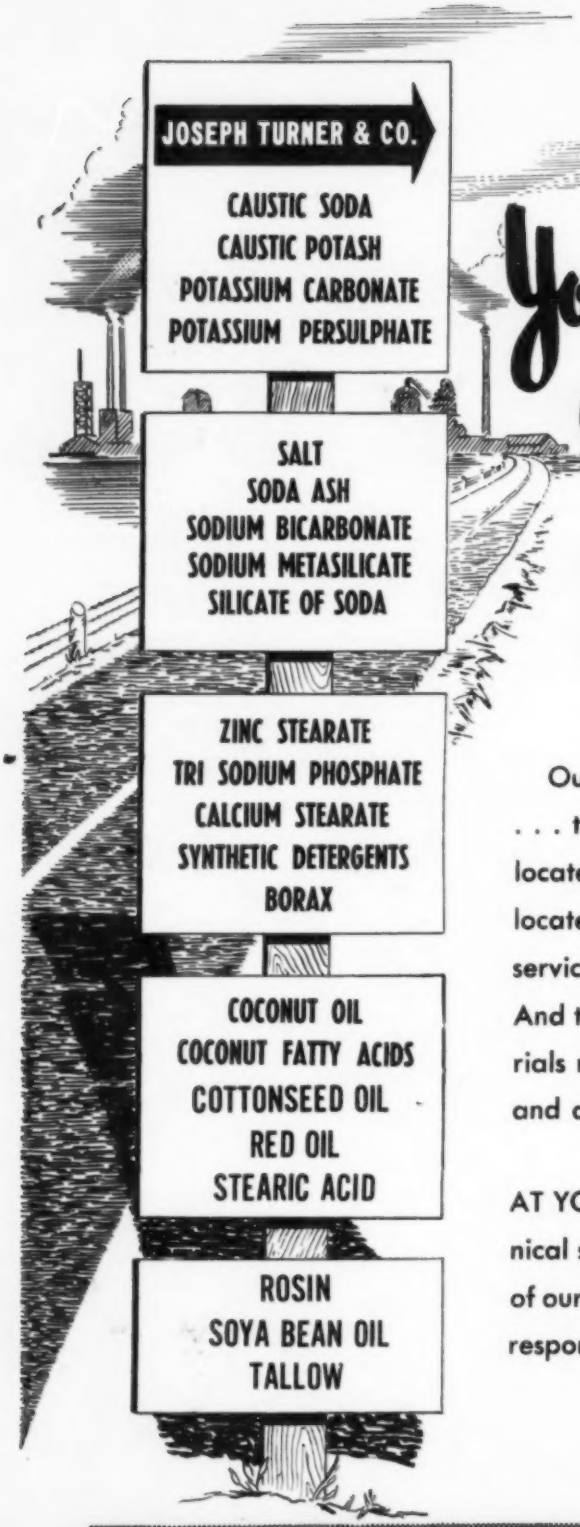
What's New?

Top left, new "Rinsit" cleaner for brass, silver, jewelry and copper ware, introduced recently by Rinsit Corp., Dallas, Tex. Wide-mouth bottle by Owens-Illinois Glass Co., Toledo, permits smaller pieces of jewelry to be dipped in bottle for cleaning. Larger articles may be cleaned by pouring "Rinsit" into a dish and then returning the liquid to the bottle for re-use. Cleaner is applied to larger pieces with soft brush, rinsed thoroughly under running water and then wiped dry. Metal closures are made by Armstrong Cork Co., and label is by Worford Printing Co., Dallas.

New and improved "Vani-Sol Bowl Cleanse" now being marketed by National Laboratories, Toledo, O., to the sanitary maintenance and hotel trade, is designed for quick removal of lime stain and organic deposits on toilet bowls. The product is packed in quart "Duraglas" bottles made by Owens-Illinois Glass Co., Toledo. Bottle carries applied color letter label of red and white which is fused on container. Closure is by Armstrong Cork Co.

New package (bottom left) for applying insecticidal dusts, now being used for "Mysterious" roach powder and "Magikil" ant dust of Nykon Chemical Corp., Mount Vernon, N. Y. The new container for these products is a refillable dispenser which features a rubber bulb, the tip of which is cut off. The dusts are discharged by pressing the rubber spray tip. The dispenser is refilled from a companion package by flipping the rubber tip off the metal bead of the applicator.

New "Palmolive" shampoo (lower right) made by Colgate-Palmolive-Peet Co., Jersey City, N. J., is claimed to be non-drying to the hair. A specially designed bottle has scalloped edges, three-color label and dark green cap which blend with chartreuse contents. Comes in giant size of five ounces to retail for 49 cents and large size of two and one-half ounces for 25 cents. A special one dozen display container for giant size only is available.



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News

Terry to Bon Ami

Bon Ami Co., New York, recently announced the appointment of Dr. Daniel H. Terry as director of

D. H. TERRY

its research department. He will be in charge of the research laboratory in New York City. Dr. Terry received his B.S. degree from Randolph-Macon College in 1936 and his Ph.D. from the University of Virginia in 1940, majoring in organic chemistry. From 1940 until 1945, he was with du Pont's Jackson Laboratory in Deepwater, N. J., where he did research, development, and pilot plant work on surface active agents.

From 1945 to 1949 he was with General Aniline and Film Corp., in Grasselli, N. J., as a process development chemist, working on surface active agents, water repellents, dyestuffs and dyestuff intermediates. Subsequently he was shifted to General Aniline's Antara Division as technical service manager on sales of surface active agents. Most recently he has been with Antara Chemicals Division of General Dyestuff as technical service manager in charge of customer service and sales development of surface active agents.

His duties with Bon Ami Co. will include the continued improvement of its household cleanser line and the development of new products in the household and industrial cleaning field.

DeVore Drackett V.P.

David G. DeVore, Jr., specialty products sales manager since 1947, was elected vice-president of Drackett Products Co., Cincinnati, it was announced last month by A. C. Shattuck, Jr., president. Mr. DeVore has been with the firm since 1934, when he was graduated from the College of Business Administration of the University of Cincinnati. After serving as sales representative in Pittsburgh, Minneapolis and Cincinnati, he was appointed division sales manager at Chicago in 1942. Five years later he returned to Cincinnati as specialty products sales manager. In his new post he is continuing in charge of sales of "Windex", "Drano" and "Charge Dog Candy".

Guernsey Kamen V.P.

F. H. Guernsey, who joined Kamen Soap Products Co., New York, several months ago as director of sales, was elected vice-president of the company recently. Previously he had been head of the industrial sales division of E. F. Drew & Co., New York, for a number of years. Sales and distribution of Kamen fatty acids and soaps are being expanded under Mr. Guernsey's direction.

F. H. GUERNSEY

Wyandotte Names Pacifico

The advancement of Carl Pacifico to the position of director of the development department of Wyandotte

CARL PACIFICO

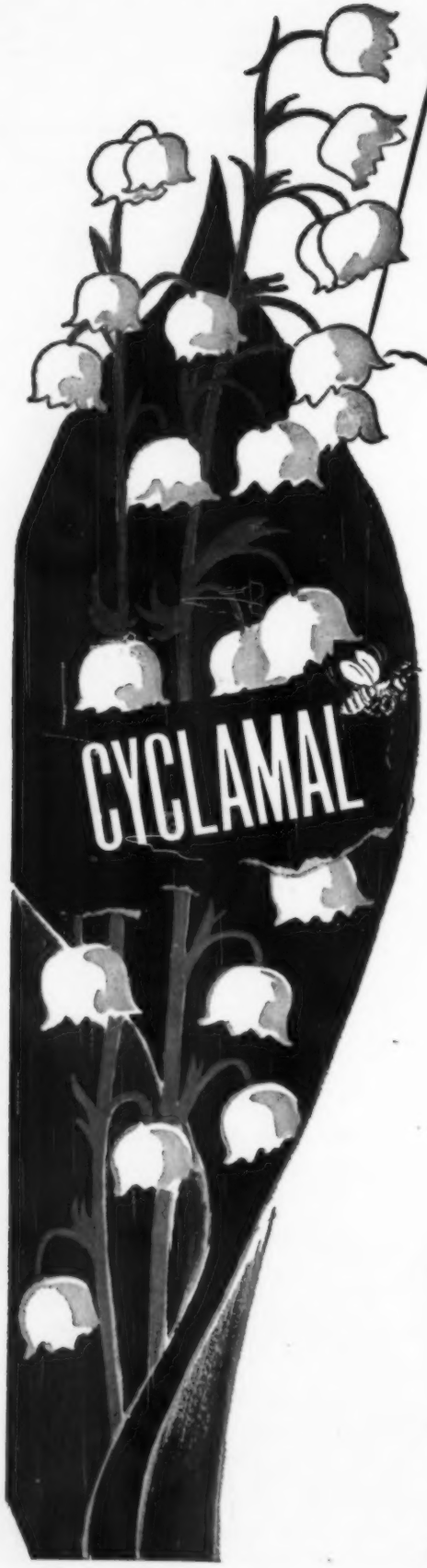
Chemicals Corp., Wyandotte, Mich., was announced recently by Dr. T. H. Vaughn, vice-president of the research-development department. Mr. Pacifico, a former member of the field service staff working on detergents and sodium carboxymethycellulose, is directing market development and technical service of new organic chemical products. Before joining Wyandotte, he was associated with Calvert Distilling Co., Baltimore, and Publicker Industries, Inc., Philadelphia.

Canada Soap Rates Down

Railroad freight rates have been lowered on soap moving between eastern Canada and interior points, it was announced recently in Ottawa. The rate reductions were a recent subject of controversy before the Royal Commission on Transportation at Ottawa.

Samuel Abrash Dies

Samuel Abrash of Paterson, N. J., a retired soap maker, formerly in business in Paterson and in New York, died Feb. 4 in Daughters of Miriam Home, Clifton, N. J., at the age of 63.



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Committee D-12 Meets March 17

TECHNICAL papers dealing with the fields of metal cleaning and testing of detergents are among the highlights of the program for the annual meeting of Committee D-12 (Soaps and other Detergents) of the American Society for Testing Materials, Philadelphia, to be held at the Park Sheraton Hotel, New York, Mar. 17 and 18. In addition to these papers and a symposium on statistical methods for the detergent laboratory, there will be committee reports and discussions involving the committee's research and standardization activities in the field of soaps and other detergents.

Papers tentatively listed for the meeting include: "Metal Cleaning before Electroplating", by H. B. Linford of Columbia University, New York; "Metal Cleaning", by William Stericker, Philadelphia Quartz Co., Philadelphia and "Methods of Testing Detergents by Soil Cloth", by J. A. Woodhead of Colgate-Palmolive-Peet Co., Jersey City, N. J.

Contributions tentatively listed for presentation at the symposium on statistical methods for the detergent laboratory include: "Tests of Significance", by P. L. Schmidt, Westinghouse Electric Corp., New York; "Comparison of Variability", by L. Beck of Alexander Smith & Sons Carpet Co., Yonkers, N. Y.; "Statistical Treatment of Detergency Data", by J. Sherman and R. Bernstein of Philadelphia Naval Shipyard; "The Importance of Correlations in Detergents Testing", by J. M. Lambert and E. J. Leshan, General Aniline and Film Corp., New York, and "The Design of Laboratory Control of Commercial Laundries", by G. S. Freeman and M. I. Cohn of American Conditioning House, Inc., Boston. These papers will be summarized and discussed by O. P. Beckwith of Alexander Smith and Sons, Yonkers, N. Y., for A.S.T.M. Committee E-11 on Quality Control of Materials.

Among the subcommittees which will meet is the reactivated group on Analysis of Synthetic Detergents. This Subcommittee T-2 is concerned with infrared analyses of synthetic detergents and there is to be a discussion of developments in this field.

Officers of Committee D-12 are: chairman, J. C. Harris of Monsanto Chemical Co., Dayton, O.; vice-chairman, Frederick Krassner, U. S. Naval Supply Depot, Brooklyn, N. Y. and secretary, H. R. Suter, Wyandotte Chemicals Corp., Wyandotte, Mich.

To Build Detergent Plant

Associated Chemical Co. recently announced the construction of a new plant in Aiken, S. C. for the manufacture of detergents for use in textile plants, laundries and other industries. The new plant is being built adjacent to the Southeastern Clay Co., officials said, in order to have easy access to South Carolina kaolin (clay).

Fat Price Rule Change

Fats and Oils Ceiling Price Regulation (CPR 6) no longer applies in non-continental territories and possessions of the United States, it was ruled recently by the Office of Price Stabilization. Thus, OPS ordered termination of CPR 6 applicability in those areas through amendment 12 to the regulation. The action was taken, according to OPS, because ceiling prices specified in the regulation were established primarily for use in the mainland markets and are not suitable when applied to sales in the territories and possessions.

Ceiling prices for fats and oils produced commercially in the territories and possessions will be determined under the General Ceiling Price Regulation until a specific regulation is issued.

Repairs Permit to P&G

The Procter & Gamble Co. plant in Kansas City was recently granted a permit for $25,000 worth of maintenance construction and repair work. The permit is required each year for industries which plan to do more than $5,000 worth of maintenance construction.

Chlorine Order Amended

An amendment to N.P.A. Order 31, covering chlorine was announced recently by the National Production Authority. The new amendment, No. 1, provides that producers and distributors must accept and schedule for shipment those orders for public health chlorine placed by consumers supplied during 1950. However, the total amount of chlorine delivered during the year need not exceed the total amount delivered during 1950. The amendment also states that the amount of chlorine delivered during a single month need not exceed 25% of such total amount delivered during 1950.

Lever Brothers Builds New Research Center

New five-story laboratory building, left, part of Lever research center now under construction, on Hudson riverfront adjacent to Lever Brothers Company plant in Edgewater, N. J. This scientific center for research and development of soap, synthetic detergents, shortening, margarine and other products will be completed later this year. Two-story pilot plant behind laboratory structure is other major building in expansion project. It will centralize in New Jersey all Lever research activities now carried on in several other states.

Always

SUPPLIED AS SPECIFIED!

There's no question about the dependable high quality of W. C. Hardesty Co., Inc. Stearic and other Fatty Acids ...standardized to give the same end result–every time.

HARDESTY PRODUCTS

RED OIL
STEARIC ACID
HYDROGENATED FATTY ACIDS
ANIMAL AND VEGETABLE FATTY ACIDS
GLYCERINE
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PLANT: DOVER, OHIO

IN CANADA: W. C. HARDESTY CO., INC. OF CANADA LTD., TORONTO

Bush New SACCI Head

Edward A. Bush of the Bush Aromatics division of the Dow Chemical Co., Jersey City, N. J., has been

EDWARD A. BUSH

elected president of the Salesmen's Association of the American Chemical Industry. The election took place on Jan. 17th at the annual business meeting at the Hotel Roosevelt, New York. He succeeds Paul Hiller of International Minerals & Chemicals Corp., New York.

Other officers elected at the meeting include: vice-president, Robert J. Milano of the Millmaster Chemical Co.; treasurer, Warren F. Schumacher, J. T. Baker Chemical Co.; and secretary, John F. Henry, Adams-Henry Chemical Co., all of New York.

Elected to the board of directors were: Edward Collins of Chilean Nitrate Sales Corp., New York; George L. Conboy, Merck & Co., Rahway, N. J.; H. M. Schulman, Washine-National-Sands, Inc., New York; W. N. Wyatt, Westvaco Chemical division, Food Machinery & Chemical Corp., New York; Frank Campbell, Chas. Pfizer & Co., Brooklyn; R. A. Nelson, Riches-Nelson and Wm. A. Smith, *Oil Paint & Drug Reporter*, both New York.

Moves Fat Department

Blaw-Knox Co. has transferred the fats and oils department of its chemical plants division from Pittsburgh to Chicago, where, as announced by E. W. Forker, division head, the service will be more centrally located in the heart of the area producing soybean and other agricultural oil crops. K. McCubbin, manager of the fats and oils department is heading the staff in the new Chicago office.

R. S. Mason Dies

Rodney Starkweather Mason, sales executive with Victor Chemical Works, Chicago, died in his Highland Park, Ill., home Jan. 9 at the age of 52 years. He had been with Victor for 23 years. Surviving are his widow, Elizabeth; a son, and a daughter.

Crown Advances Stuart

The appointment of Edward P. Stuart as sales manager of the firm's "Spra-Tainer" and beverage can divisions of Crown Can Co., Philadelphia, was announced last month. Until recently he was assistant New York district sales manager. Mr. Stuart is making his headquarters at Crown's executive offices in Philadelphia, reporting directly to Harvey C. Tull, general sales manager and F. Howard Braithwaite, director of sales.

Mr. Stuart has been with the firm for more than 15 years, and prior to becoming assistant New York district sales manager, served successively in the following capacities beginning in March, 1936: in charge of tin plate control; in charge of production control; office manager, Madison, Wis., and St. Louis offices; inside sales representative in Philadelphia and outside sales manager, New York.

EDWARD P. STUART

MM&R Names Jensen

Magnus, Mabee and Reynard, Inc., New York, announced recently the appointment of A. R. Jensen as

A. R. JENSEN

head of their midwestern division with headquarters at 221 North LaSalle Street, Chicago. He has been with MM&R since 1948, when he joined the firm as district manager of the northwest with offices in Milwaukee. He succeeds G. F. Mehren who now heads MM&R Pacific Coast operations. Mr. Jensen has an extensive background in wholesale jobbing, sales promotion, oil marketing and as Chicago divisional manager of the Mutual Drug Company.

Awards to Soapers

American Institute of Management, New York, has awarded certificates of Management Excellence for 1951 to Colgate-Palmolive-Peet Co., Jersey City, and the Procter and Gamble Co., Cincinnati, it was announced recently. This is the second time the Institute has cited these companies as "excellently managed".

The awards were made on the basis of excellence in ten separate fields: economic function, corporate structure, health of earnings growth, fairness to stockholders, research and development, directorate analysis, fiscal policies, production efficiency, sales vigor and executive evaluation. Only 298 firms in the United States and Canada were deemed eligible to receive the awards.

WYANDOTTE
CHEMICALS
Application of a new chemical is frequently as important as the chemical itself. We have a staff of skilled chemists whose job it is to help you. Let them!

TRY KREELON CD...NEW, for promoted detergency, emollient effect on hands!

The only product of its kind, Wyandotte KREELON CD combines the advantages of a synthetic detergent and a *detergent-promoter* in your cleaner formulations!

Test these facts for yourself—*see* how new KREELON* CD benefits you, at an actual *saving in the cost* of your finished product.

Greater emollient effect

KREELON CD combines the advantages of a quality detergent with a detergent-promoter, sodium CMC, in one homogeneous, rapidly dissolving product. Substituted for the alkylarylsulfonate detergent you're now using, in a properly compounded cleaner, it promotes smooth, gentle, long-lasting suds . . . *reduces skin irritation*—a very positive sales appeal for your product. It will give your cleaner 20%-70% improvement in soil removal and whiteness retention properties in cotton-cleaning formulations.

Advantages in compounding

Because KREELON CD acts both as a detergent and promoter, it saves you storage space and handling time. It dissolves rapidly, for *further* time savings. It's dustless—minimizes housekeeping.

Whether you make general household cleaners, laundry compounds, scouring powders, building-maintenance or other cleaners—let us *show* you how KREELON CD can give you a superior cleaning compound *easier, faster, cheaper.* Write for complete data. *Wyandotte Chemicals Corporation, Wyandotte, Michigan. Offices in Principal Cities.*

*REG. U.S. PAT. OFF.

Wyandotte CHEMICALS

Tombrel Names Gogarty

Arthur C. Gogarty, a former salesman for Tombarel Products Corp., New York, has been advanced to the

ARTHUR GOGARTY

position of sales manager of the company. The appointment was announced recently by Dr. Paul Muhlethaler, president of Tombarel.

New Soda Ash Plant

Intermountain Chemical Corp., a subsidiary of Food Machinery and Chemical Corp. and National Distillers Products Corp., New York, which has received a necessity certificate award on its big new soda ash plant near Green River, Wyoming, recently released details on this project. The plant will cost over $15 million. The new plant is scheduled to be completed by early 1953, and it will employ nearly 400 workers for the combined mining and refining operations. The plant will generate its own power and steam, bringing water from the Green River, nine miles away, and natural gas from Wyoming gas fields through a new 22-mile pipe line.

Westvaco Chemical Division of FMC will continue to manage physical operations at the Green River plant and will be exclusive sales agents for the various grades of refined soda ash produced. C. A. Romano, resident manager at Green River, says there will be no change in basic organization or policies.

Hogue On P&G Board

W. D. Hogue has been appointed a director of advertising and a member of the board of directors of Procter & Gamble Co. of Canada, Limited, Toronto, according to a recent announcement by W. E. Williams, president. The appointment is effective immediately. Mr. Hogue joined the advertising department of Procter & Gamble in 1939 and has been continuously in advertising work since that time, except for war service as a lieutenant in the U. S. Naval Reserve.

Hafner Joins Berlage

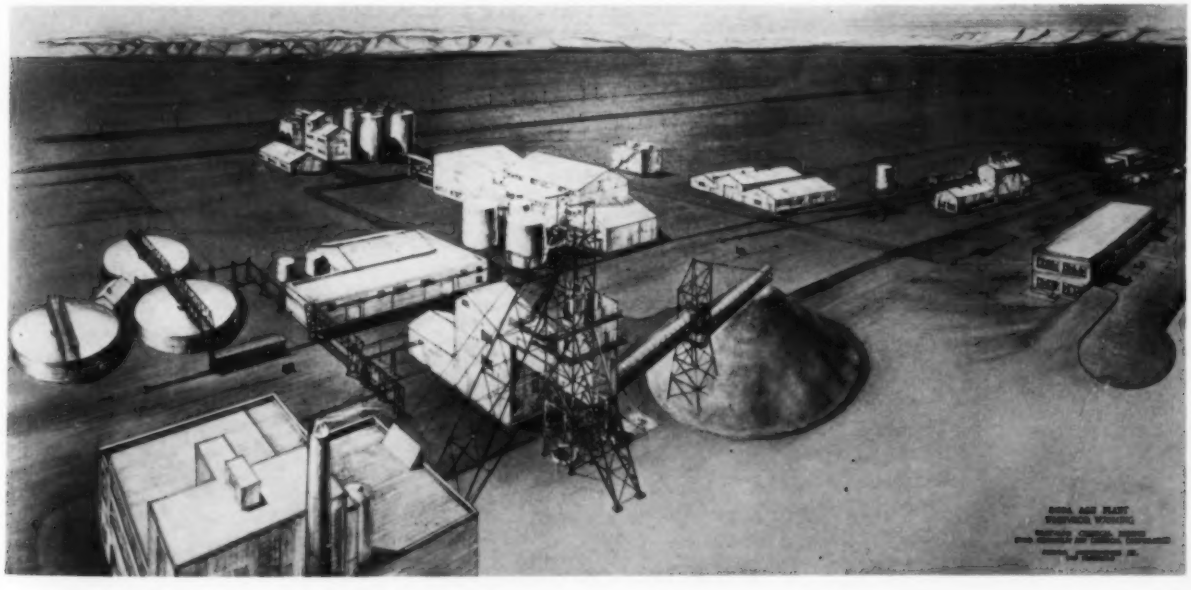
Arthur P. Hafner, for the past 30 years with Orbis Products Corp., New York, essential oil and aromatic

ARTHUR P. HAFNER

chemical manufacturers, has joined J. Berlage Co., 30 East 40 Street, New York, as vice-president, it was announced early this month by Jan Berlage, president. Mr. Hafner is in charge of the company's essential oil, aromatic chemical and related commodities division.

Boehm Joins Prior

Prior Chemical Corp., New York, recently announced that Edwin J. Boehm, formerly of National Aniline Division of Allied Chemical and Dye Corp., New York, has joined Prior as vice-president.



Artist's conception of new Intermountain Chemical Corp. plant being constructed near Green River, Wyo.

DRYMET*

THE ECONOMICAL DETERGENT SILICATE

Cowles DRYMET, anhydrous sodium metasilicate, is the most highly concentrated form of sodium metasilicate available. It is more economical to use, on the basis of both Na_2O (alkalinity) and SiO_2 (silicate) than any other type of hydrated or anhydrous detergent silicate, either compounded or by itself. DRYMET contains no water of crystallization.

CRYSTAMET*

THE MEDIUM pH DETERGENT SILICATE

Cowles CRYSTAMET is a pure, perfectly white, free-flowing granular pentahydrate sodium metasilicate with the normal 42% water of crystallization. Suggested for compounding when it is desirable to lower the concentration of a finished product. Readily soluble—chemically stable—easy to handle. Can be used on medium pH jobs.

DRYORTH*

THE HEAVY-DUTY DETERGENT SILICATE

Cowles DRYORTH, anhydrous sodium orthosilicate, is a powerful, speedy, heavy-duty cleaner with valuable penetrating and wetting-out properties, reinforced dirt-removing power and unusual emulsifying action. It is an anhydrous, free-flowing powdered silicate containing not less than 60% Na_2O, which may also be used as an economical constituent of high pH cleaning compounds.

DRYSEQ*

THE ALL-PURPOSE DETERGENT SILICATE

Cowles DRYSEQ, anhydrous sodium sesquisilicate, is a medium pH alkaline cleaner which will do fast, dependable work at a low cost to the user. It is a white, free-flowing powder, quickly and completely soluble in hot or cold water—containing 56.75% Na_2O—making it an economical base material for compounding.

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CHEMICALS

We'll be glad to send you our DRYMET File Folder containing complete technical information and suggested formulations.

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Dr. Keller Joins Schimmel

Dr. Karltheo Keller, formerly director in charge of production and development of Schimmel & Co. A.G.,

KARLTHEO KELLER

Germany, has joined Schimmel & Co., New York, to direct its technical staff, it was announced recently by his brother, Gert Keller, head of the essential oil firm. Regarded as one of the foremost authorities on the aromatic field, he earned his Ph.D. at Berlin University.

Monsanto Names Two

The appointment of Edmund Greene to the newly-created position of sales promotion manager of the organic chemicals division was announced recently by Robinson Ord, division general manager of sales of Monsanto Chemical Co., St. Louis. Mr. Greene, a Harvard graduate, was with Rohm & Haas Co., Philadelphia, for eight years until he joined Monsanto in 1947. He was appointed sales promotion and advertising manager for the company's Merrimac division at Everett, Mass. the same year.

Mr. Greene is replaced by Walter L. Campbell who has been advanced to the position of advertising manager of the Merrimac division. The promotion was announced by H. J. Heffernan, general sales manager of the company.

Another Monsanto appointment announced recently concerns Robert S. Weatherly who has been named director of economics of the phosphate division. Mr. Weatherly, general manager of the sales department of the phosphate division since 1940, is succeeded by Tom K. Smith, Jr., formerly manager of plasticizers and resins sales for the organic chemicals division since 1949. Previously he was with the phosphate division as assistant branch manager in charge of the Cincinnati branch of the division's Cleveland office.

On Warner-Hudnut Board

The election to the board of Warner-Hudnut, Inc., New York, of Charles L. Huisking, president of Chas. L. Huisking & Co., New York, was announced recently by Elmer H. Bobst, president.

Jim Wheeler, Jr. Returns

James Wheeler, Jr., son of the president of the Essential Chemicals Co., Milwaukee, has been returned to inactive duty in the Naval Reserve. He is back with Essential Chemicals and has been assigned to special sales development. James, Jr., a graduate of the U. S. Naval Academy and former regular Navy man, has spent the past year helping to recommission the destroyer, USS *Wren* at Charleston, S. C. He holds the rank of commander.

Canadian Cleaners to Meet

The 19th annual convention of the Canadian Research Institute of Launderers and Cleaners will be held at Windsor, Ont., Canada, March 7, 8 and 9.

Vick Advances Lovatt

J. Walter Lovatt, director of purchases for Vick Chemical Co., New York, and subsidiaries, has also as-

J. WALTER LOVATT

sumed the added responsibilities of managing the firm's cosmetic and perfume manufacturing plant in Bloomfield, N. J., it was announced recently by E. L. Mabry, president. Mr. Lovatt succeeds H. D. McKay who has retired from Vick after nearly 36 years' service to become an independent management consultant for several companies, including Vick.

Seaforth men's toiletries, Prince Matchabelli perfumes and Sofskin hand cream are manufactured at the Bloomfield plant.

Mr. Lovatt joined Vick as assistant purchasing agent in Greensboro, N. C. in 1942, having previously been an independent trader on the Commodity Exchange in New York from 1929, when he was graduated from Colgate University. He was advanced to the position of purchasing agent for the parent company in 1945.

Group photo taken during recent regional sales meeting of Harriet Hubbard Ayer, Div. of Lever Bros. Co., New York.

"...which reminds me,
Givaudan soap fragrances
are long on consumer appeal."

For information about soap-selling fragrances, write to
Givaudan-Delawanna, Inc.
330 West 42nd Street, New York 36, N. Y.

Expanding Facilities

An extensive modernization program to improve and expand manufacturing facilities for essential oils

PIERRE ZILLER

and related products of Jean Roure, Pierre Ziller, Bruno Court, S.A., Grasse, France, was announced recently by Pierre Ziller, president, during a recent extended tour to the Western Hemisphere. The firm is represented in the United States by the Naugatuck aromatics division of United States Rubber Co., New York. Mr. Ziller also said that Jean Roure, Pierre Ziller, Bruno Court, S.A., are expanding their distribution facilities to give the best possible service in the U. S. Mr. Ziller is a former mayor of Grasse. In addition to him, other members of the firm include Jean Roure and Jean Carlavan, all of whom have been associated with the essential oil industry for many years.

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Sharples, Pennsalt Combine

The combination of Sharples Chemicals, Inc. with the Pennsylvania Salt Manufacturing Co., both Philadelphia, through an exchange of common stock has now been effected, George B. Beitzel, Pennsalt president, announced recently. For the present, Mr. Beitzel said, Sharples will continue to operate as a separate unit of Pennsalt with, however, an exchange of technical information and coordination of some policies to the mutual benefit of both organizations.

"The combination of Sharples with our company," he added, "gives Pennsalt an established position in the synthetic organic chemical field — a field in which we have been increasing our activities and interest for several years. I believe it opens new horizons of research and product development for both companies." He also pointed out that each company has established markets for some products of the other, such as one Sharples' product, a herbicide and defoliant, in agricultural chemicals, and "Nonic," a surface active agent, in the detergent field.

Another advantage to the combination, he said, is that it assures Sharples a supply of some of its basic raw materials, chlorine, caustic soda and ammonia, which are produced at Pennsalt's Wyandotte plant, adjacent to the Sharples plant.

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Towe Cyanamid President

Kenneth C. Towe was elected president of American Cyanamid Co., New York, at a meeting of the board of directors, Jan. 22nd. He succeeds the late Raymond C. Gaugler, who died suddenly on January 11th, 1952. Mr. Towe has been a director of the company since 1939. He has been associated with the Cyanamid organization since April 26th, 1926 when he joined the company as a member of the accounting department. He progressed through the positions of assistant treasurer and comptroller and was appointed treasurer on April 4th, 1939.

On May 15th, 1945, Mr. Towe was promoted to vice president in charge of finance. He is a director of several companies associated with American Cyanamid Company, These include Porocel Corp., jointly owned with Attapulgus Clay Co.; Southern Minerals Corp.; Southern Pipe Line Corp.; and Southern Petroleum Corp., all jointly owned with the Pittsburgh Plate Glass Co. He is also director of Cyanamid's principal subsidiaries, North American Cyanamid, Ltd., Chemical Construction Corp., and Cyanamid Inter-American Corp.

Howard Huston, vice-president, American Cyanamid Co., was elected a director to fill the vacancy created by the death of Raymond C. Gaugler.

Kiehl Joins D&O

John Kiehl, former head of the perfume and flavor division of the research and development department

JOHN KIEHL

of Colgate-Palmolive-Peet Co., Jersey City, N. J., recently joined Dodge & Olcott, Inc., New York perfuming materials firm. He is serving in a consultative capacity to the firm's staff of perfumers. Mr. Kiehl entered the perfume business in 1923 by way of the essential oil industry, and spent the first 10 years of his career in this field. He then entered the manufacturing end of the business with Colgate-Palmolive-Peet Co., with which he has been associated for about 18 years.

Most of his actual research and experimental work will be carried on at his laboratory in Willsboro, N. Y. The laboratory, an adjunct to his home, was built to his own specifications, and is fully equipped with modern appointments. Mr. Kiehl is working exclusively with D&O and will consult with the firm's customers as part of his work.

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Kenny Joins Edwards

Leo F. Kenny, formerly with Seydel Chemical Co., Jersey City, N. J., and identified with the chemical industry for many years, recently joined Frank J. Edwards Co., 15 William St., New York. Mr. Kenny is acting as a special representative of the company in the handling of industrial and fine chemicals and chemical specialties.

TO LOWER THE COST
OF YOUR FORMULA
TRY
OUR

GERANIUM IMITATION 1621

AND

SANDALWOOD SIAM

TWO FINE SUBSTITUTES FOR
NATURAL ESSENTIAL OILS

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GRASSE (A. M.) FRANCE — ARGENTEUIL (S & O) FRANCE

Wrisley Advances Cox

H. Howard Cox, former western sales representative for the private brand division of Allen B. Wrisley

H. HOWARD COX

Co., Chicago, was appointed recently as eastern sales manager of the company, it was announced by George A. Wrisley, Jr., general sales manager. Mr. Cox's headquarters are at Wrisley's New York office, 347 Fifth Avenue. Since January 1949, he has worked from Los Angeles, covering fifteen states. As a result of his work in the West, Wrisley opened a Los Angeles office last July.

Before joining the Allen B. Wrisley Company, Mr. Cox was sales representative for Prince Matchabelli in the New York metropolitan area. During the war he served as a major in the Army Air Forces. He was graduated from Rutgers University in 1938.

Ungerer Sales Meeting

A three-day sales meeting, one day of which was spent in sessions at the company's factory in Totowa, N. J., was held recently by Ungerer & Co., New York. The first day's session opened with an address of welcome by W. A. Bush, general sales manager. He was followed by Kenneth G. Voorhees, president of Ungerer, who gave a detailed discussion on the present status and future trends of essential oils and aromatic chemicals. Mr. Voorhees also conducted the session on the afternoon of the second day of the meeting. W. H. Dunney, Jr., vice-president, presided at two other sessions in New York, while Dr. Darrell Althausen, technical director was in charge of the sessions at the Ungerer plant. Also participating was Fred H. Ungerer, chairman of the board.

Westvaco Moves in N.Y.C.

General offices of Westvaco Chemical Division of Food Machinery and Chemical Corp., New York, were moved recently from the Chrysler Building, 405 Lexington Ave. to Chrysler Building East, 161 E. 42nd Street, New York 17, N. Y. Westvaco occupies the 11th, 12th and 13th floors of the building.

de Hoyos to Latin America

Luis de Hoyos, Jr., vice-president of Synfleur Scientific Laboratories, Inc., Monticello, N. Y., is on a six-week business trip to Central and South America. His travels are taking him to Guatemala, El Salvador, Costa Rica, Panama, Ecuador, Colombia and Venezuela. He will return to the United States about March 1.

Oil Chemists Meet Feb. 26

Frank V. White of Foster Wheeler, Inc., New York, will speak on the "Fractional Distillation of Fatty Acids" at the Feb. 26 dinner meeting of the Northeast Oil Chemists' Society, to be held at the Building Trades Employers Association, 2 Park Ave., New York.

Davies-Young Detergent

A new concentrated liquid detergent for commercial dishwashing was announced recently by Davies-Young Soap Co., Dayton, O. "Dysh", the new detergent, is designed especially for use with the firm's new "Dyjet" measuring device that fits over all standard faucets. A lever, near the dispenser nozzle that slips over the head of the faucet, can be snapped on or off to control the flow of detergent into the wash water. "Dysh" is said to suds instantly in all types of water. Recommended dilution is one-half ounce to a gallon of water. A folder on the new detergent is available on request.

Officials and division managers of Davies-Young Soap Co., Dayton, O., watch the operation of a new detergent measuring dispenser for commercial hand dishwashing at a sales meeting in the firm's Dayton plant.

The new Dyjet dispenser will be available exclusively through the company. It was designed by Lou Pollack, sales promotion manager, to be used with the firm's new concentrated liquid detergent Dysh.

Dyjet is attached to a faucet with a tube running to the detergent. A simple lever provides clear water or cleaning suds.

At the meeting, distribution plans for jobbers were discussed.

From left to right are M. G. Schiller, treasurer; C. F. Young, chairman of the board; Lou Pollack, Howard Young, assistant secretary; W. C. Tyson, central division manager; Gene Logan, midwest; B. M. Ramsey, central; S. H. Houser, north central, and M. Shubinski, southwest and Mexico.

Since the Days of the "Stage Coach"...

CHECK YOUR NEEDS FROM THIS LIST

VEGETABLE OILS

Babassu	Olive
Castor	Palm
Cocoanut	Peanut
Corn	Sesame
Cottonseed	Soybean

ANIMAL FATS

Sperm Oil	Grease
Oleo Stearine	Tallow
Lard Oil	Lanolin
Neatsfoot Oil	

FATTY ACIDS

Red Oil — Tall Oil — Tallow

Stearic Acid
Hydrogenated Fatty Acid
Cottonseed and Soybean Fatty Acids

ALKALIES

Caustic Soda, Solid, Liquid, and Flake
Soda Ash, Light and Dense
Carbonate of Potash, calcined and hydrated
Calcium Chloride
Tri Sodium Phosphate
Tetra Pyro Phosphate
Quadrafos Granular and Beads—a stable polyphosphate for water conditioning and mild but effective detergency.

Soapers have depended on WH&C ...for Raw Materials of Quality

SINCE 1838, we've been supplying the nation's "soapers" with basic raw materials.

SILICATE OF SODA—Liquid powdered and solid.

META SILICATE—"Metso"* Granular.

METSO* DETERGENTS—55, 66, 99.

MAYPONS—Unique surface active agents; prolific foam; high detergency and emulsifying powders; suitable for cosmetic and industrial use.

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Let us mix your dry private formulas

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Warehouses in New York and Newark, N. J.

M. Reboul Dies

Marius Reboul, world-renown perfumer, died on January 24th, in Geneva, Switzerland, at the age of 79.

MARIUS REBOUL

Mr. Reboul was the chief perfumer for more than fifty years for L. Givaudan & Cie., S.A., Vernier-Geneva, Switzerland, whose affiliate in this country is Givaudan-Delawanna, Inc.

Mr. Reboul, who was well known to the perfume industry in the United States, has been perhaps the so-called father of modern perfume trends. He was among the first to have the vision and the ability to blend synthetic aromatic chemicals with natural materials, and thus since the beginning of the century provide the perfumer with an increasingly wide variety of tools with which to work.

Born in Lyons, France, Mr. Reboul spent the major part of his life in Switzerland. He is survived by his wife, a daughter, and a son.

New Perfumery Company

Flam-Haft Laboratories, Inc., New York, has recently been organized to take over the business of United Laboratories. The new company, with headquarters at 8 E. 12th St., New York, plans to carry on the same policies established by United and will supply a complete line of aromatic chemicals, essential oils and perfumery compounds for soaps, shampoos, detergents, cosmetics, chemical specialties, etc. Officers of the new company are Mrs. Betty Flamhaft, president and Miss Anne Zafren, secretary.

New Kearny Wetting Agent

"Pluramine SS-100", a new surface active material offering increased wetting and foaming power, was announced recently by Kearny Manufacturing Co., Kearny, N. J. It does not offer particular advantages with respect to detergency in aqueous solutions, but is recommended for use where foaming and wetting are of importance. Applications include its use in carpet cleaners, polishes, dishwashing compounds, insecticidal sprays, household cleaners, metal cleaners, etc.

The new material, a refined version of "Pluramine S-100", to which it is similar, solidifies easily at lower temperatures. Slight heating (during which localized overheating should be avoided) and stirring restores the natural fluidity of the product. In aqueous solutions "Pluramine SS-100" shows a tendency to crystallize and separate. Separation can be overcome by addition of such solvents as ethyl alcohol, glycols and glycol ethers. These solvents increase the foaming of the compounds.

The price of "Pluramine SS-100" in 450 pound drums is 52½ cents a pound. Data on its chemical and physical properties, as well as an information sheet on its use in hair shampoos are available.

BIMS '52 Golf Dates

Golf dates for the 1952 season of the BIMS of New York, as announced at the group's annual dinner at the New York Athletic Club, New York, Jan. 31, include The Knolls, Boonton, N. J., June 24; Winged Foot Country Club, Mamaroneck, N. Y., July 22; Nassau Country Club, Glen Cove, L. I., N. Y., August 19, and Pelham Country Club, Pelham, N. Y., Sept. 30.

Approximately 225 members and guests were present for the dinner, one of the largest in the history of the organization. Two recording devices were given away as door prizes. Peter Forsman of C. H. Forsman Co., New York, is chairman of the BIMS.

Restudy Fat Import Bill

A bill which would repeal sharp curbs on imports of fats, oils and dairy products written into the Defense Production Act was sent back recently to committee for further study by a 47 to 39 vote in the U. S. Senate. At the same time the legislative body recommended that the Banking and Currency Committee reconsider the bill and report to the Senate not later than March 3. President Truman has asked for repeal of the section curtailing fat and oil imports.

MMR Hear Williams

Howard Williams, president of Erwin, Wasey advertising agency, New York, recently addressed officers and sales representatives of Magnus, Mabee and Reynard, Inc., New York, essential oils firm. The occasion was the annual sales conference of MMR, on Jan. 11th at the Hotel Vanderbilt, New York.

Represent Coast Firm

Lotte Chemical and Dye Corp., Paterson, N. J., is now serving as east coast representative for the Vopcolene Division of Vegetable Oil Products Co., Los Angeles, and W. Ronald Benson, Inc., of Seattle is handling sales in the Pacific Northwest, according to a recent announcement by W. J. O'Connell, vice-president. B. E. Dougherty Co. is serving as national sales distributor for Vopcolene.

Charles E. Arch, midwestern sales manager of Sheffield Tube Co., was elected last month as president of the Chicago Perfumery, Soap and Extract Association. He succeeds Benjamin Bridge, Jr. of Bridge Chemical Co.

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Produced at our Brooklyn Factory

OILS

CLOVE	BALSAM PERU	OPOPONAX
NUTMEG	CELERY	PIMENTO
ORRIS LIQUID, Conc.	GERANIOL	OLIBANUM
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Established 1885

NEW Trade Marks

THE following trade marks are published in compliance with section 13 (a) of the Trade Mark Act of 1946. Notice of opposition must be filed within 30 days of publication and a fee of $25 must accompany each notice of opposition.

Niagara—This for insecticides. Filed July 29, 1948 by Food Machinery and Chemical Corp., San Jose, Calif. Claims use since 1911.

Hooker—This for paradichlorobenzene. Filed Aug. 11, 1948 by Hooker Electrochemical Co., Niagara Falls, N. Y. Claims use since July 1, 1944.

Nuodize—This for pest control compositions. Filed Sept. 9, 1949 by Nuodex Products Co., Elizabeth, N. J. Claims use since Aug. 30, 1949.

Chemi-Fume — This for fumigants. Filed Jan. 24, 1950 by Chemi-Sol Chemical and Sales Co., Hutchinson, Kans. Claims use since Jan. 28, 1949.

Di-Mite — This for insecticide. Filed Jan. 25, 1950 by S. P. F. Wood-Preserving Co., Cambridge, Mass. Claims use since Mar. 17, 1930.

Dyna-Shave—This for shaving cream. Filed Oct. 27, 1950 by Dyna-Shave, Inc., Chicago. Claims use since Oct. 19, 1950.

Blu-White—This for soap. Filed Aug. 22, 1947 by Manhattan Soap Co., New York. Claims use since Apr. 5, 1922.

Jellay—This for soapless shampoo. Filed Aug. 17, 1948 by W-B Chemical Co., Mount Vernon, N. Y. Claims use since Nov. 20, 1933.

pH6 — This for liquid skin cleansing detergent. Filed Aug. 27, 1948 by Stepan Chemical Co., Chicago. Claims use since Jan. 12, 1943.

Turbo Flush — This for solvent composition for cleaning and flushing automobile radiators, etc. Filed Jan. 17, 1949 by Associated Producers, Inc., Hazel Park, Mich. Claims use since Nov. 15, 1948.

Lakeseal—This for detergents. Filed May 25, 1949 by Finger Lakes Chemical Co., Ithaca, N. Y. Claims use since June 29, 1940.

Syntergent—This for detergent for general industrial application. Filed Oct. 1, 1949 by Nopco Chemical Co., Harrison, N. J. Claims use since February, 1942.

Jetco—This for jelly type soap product used for cleaning floors, etc. Filed Feb. 27, 1950 by Jewel Tea Co., Barrington, Ill. Claims use since Dec. 20, 1949.

Beau-Clean — This for dry cleaning detergent in concentrated form. Filed Oct. 26, 1950 by Murphy Sales Co., Atlanta, Ga. Claims use since July 10, 1950.

Felso—This for dry detergent in bead or powder form for general household use. Filed Jan. 29, 1951 by Fels and Co., Philadelphia. Claims use since June 2, 1950.

Odor Aire—This for chemically treated blocks used in door-operated sprays. Filed Oct. 30, 1948 by H. D. Conner Co., Wichita, Kans. Claims use since Nov. 1946.

Torch — This for insecticides. Filed Nov. 4, 1949 by Standard Oil Co., Whiting, Ind. Claims use since August, 1923.

Metacide — This for insecticide. Filed Feb. 10, 1950 by Geary Chemical Corp., New York. Claims use since Jan. 27, 1950.

Residol—This for insecticides. Filed July 15, 1950 by West Disinfecting Co., Long Island City, N. Y. Claims use since Jan. 1, 1946.

Quik-Kill — This for parasiticides. Filed July 25, 1950 by Food Machinery and Chemical Corp., San Jose, Calif. Claims use since 1939.

Graminon — This for insecticides. Filed Dec. 7, 1950 by Geigy Co., New York. Claims use since Oct. 25, 1950.

Al-Rin — This for insecticide. Filed Apr. 14, 1951 by William Cooper & Nephews, Inc., Chicago. Claims use since Mar. 23, 1951.

Mermoral — This for effervescent antiseptic, cleansing and deodorizing tablet. Filed Nov. 24, 1950 by Carter Products, Inc., New York. Claims use since Oct. 18, 1950.

Lucky Strike—This for soap. Filed May 15, 1950 by Lucky Strike Perfumeries Corp., New York. Claims use since Nov. 28, 1935.

Puff — This for insecticides. Filed Dec. 6, 1947 by Regal Chemical Corp., Brooklyn. Claims use since Nov. 5, 1947.

Mabros—This for deodorizing chemical compositions. Filed Mar. 28, 1951 by Phillips Scientific Laboratories, North Arlington, N. J. Claims use since Jan. 12, 1951.

Drac — This for insecticides. Filed Apr. 23, 1951 by Drac Manufacturing Co., New Blaine, Ark. Claims use since June 20, 1950.

Serf-O-Let—This for disinfectant material for sterilizing toilet bowls. Filed May 21, 1951 by Kinnard, Inc., Little Falls, N. J. Claims use since July 1949.

Lustro — This for soap. Filed Jan. 31, 1948 by Armour & Co., Chicago. Claims use since 1920.

Safety-Sol—This for solvent for cleaning air brake systems. Filed Feb. 23, 1950 by Preventive Maintenance Co., Bridgeport, Conn. Claims use since Oct. 16, 1946.

Varrick—This for soap powder, household cleanser and dishwashing compound. Filed Dec. 18, 1950 by Francis H. Leggett & Co., New York. Claims use since 1930.

Arma—This for vegetable waxes—namely carnauba, ouricuri and candelilla wax. Filed Dec. 11, 1947 by Allied Raw Materials Co., New York. Claims use since Oct. 1, 1946.

Bronco — This for naphtha. Filed Apr. 11, 1949 by R. J. Brown Co., St. Louis. Claims use since Jan. 1, 1947.

Nola—This for chemical preparations for destroying moths, larvae, moth eggs and carpet beetles. Filed Mar. 2, 1950 by Norwood Laboratories, Chicago. Claims use since Feb. 7, 1950.

Alrodyne—This for surface active agents. Filed Oct. 25, 1950 by Alrose Chemical Co., Cranston, R. I. Claims use since May 11, 1950.

Alrosperse — This for surface active agents. Filed Oct. 25, 1950 by Alrose Chemical Co., Cranston, R. I. Claims use since Oct. 2, 1950.

Cona-One—This for economic poisons. Filed Mar. 16, 1951 by Fungitrol Chemicals, Inc., Hillside, N. J. Claims use since Sept. 19, 1950.

Nialk—This for chlorine, caustic potash, carbonate of potash, paradichlorobenzene and trichloroethylene. Filed May 1, 1951 by Niagara Alkali Co., Niagara Falls, N. Y. Claims use since Sept. 11, 1942.

Dar-Hy—This for fatty acids. Filed May 2, 1952 by Darling & Co., Chicago. Claims use since May 17, 1951.

Sanisect—This for aerosol insecticide spray. Filed May 25, 1951 by Stalfort Pressure-Pak, Inc., Baltimore. Claims use since Aug. 1, 1950.

D&O — This for essential oils and aromatic chemicals. Filed Apr. 24, 1951 by Dodge and Olcott, Inc., New York. Claims use since 1861.

Speedup — This for window cleaners, glass wax, soap flakes and granulated soap. Filed Dec. 1, 1949 by American Stores Co., Philadelphia. Claims use since Sept. 25, 1940.

Goop—This for hand cleaner. Filed Nov. 16, 1949 by the Meunch Laboratories, St. Louis. Claims use since Aug. 30, 1949.

Foil — This for all purpose cleaner. Filed Feb. 8, 1950 by Service Industries, Philadelphia. Claims use since Jan. 19, 1950.

Jolly Suds—This for washing powder. Filed Mar. 27, 1950 by Hylo Co., Inc., Houston, Tex. Claims use since Feb. 16, 1950.

No. 615—This for detergent for washing dishes and for general cleaning purposes. Filed June 24, 1950 by Allied Chemical and Dye Corp., New York. Claims use since 1950.

Laundro-Suds—This for washing compound. Filed July 6, 1950 by Nocon Products Corp., New York. Claims use since Apr. 1, 1950.

Shi-nize — This for synthetic powdered detergent for hand dishwashing, laundry and general cleaning. Filed July 14, 1950 by Grace-Lee Products, Inc., Minneapolis. Claims use since Oct. 13, 1941.

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OIL BOUQUET H.O. No. 8267
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OIL BOUQUET APPLE BLOSSOM
No. 8240
OIL BOUQUET ALMOND
No. 8262 Water Soluble
OIL CLOVER No. 888

SOAP ODORS

OIL MIMOSA No. 615
OIL BOUQUET S No. 61
OIL JASMIN No. 613
OIL BOUQUET C No. 613
OIL BOUQUET F. L. No. 300

For LIQUID SOAP

OIL BOUQUET E.C. No. 618 Water Soluble
OIL BOUQUET E.T. No. 618 Water Soluble
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Bids and AWARDS

F.S.S. Soap Bids

National Milling & Chemical Co., Philadelphia, submitted a low bid of 4.11 cents on 19,935 pounds of soap powder in a recent opening for miscellaneous supplies by the New York Federal Supply Service. Other low bids on soap products in an F.S.S. opening include those of: Crystal Soap & Chemical Co., Philadelphia, 84 cents on 240 gallons of liquid toilet soap; National Chemical Laboratories of Pennsylvania, Philadelphia, 9.5 cents on 400 pounds of paste soap; Stevens Soap Corp., Brooklyn, 4.3 cents on 24,640 pounds of soap powder, and M. Schneider & Sons, Brooklyn, 3.38 cents on 18,000 cakes of grit soap.

Low Floor Wax Bids

Low bids on two items of floor wax in a recent opening for miscellaneous supplies by the Federal Supply Service, New York, were submitted by Trio Chemical Works, Brooklyn. Trio's low bids were 67 cents on item 1, 1,680 gallons of floor wax and 14.2 cents on item 2, 3,264 pounds of paste wax.

Naphthalene Flakes Award

In a recent opening for miscellaneous supplies by the Army Quartermaster Corps, New York, the Tar Products Division of Koppers Co., New York, received the award on 388,884 pounds of naphthalene flakes with a bid of $64,051.78.

FSS Wax, Soap Bids

The following bids were received in a recent opening for miscellaneous supplies by the Federal Supply Service, New York: item 1, 5,960 pounds of paste floor wax, Trio Chemical Works, Brooklyn, 15 cents; Unity Sanitary Supply Co., New York, 21 cents; Buckingham Wax Co., Long Island City, N. Y., 14.11 cents; American Wax Co., College Point, N. Y., 17.5 cents; Oil Specialties & Refining Co., Brooklyn, 14.5 cents; Kem Products Corp., Brooklyn, 13.8 cents; item 2, 1,331 gallons of liquid soap, National Chemical Laboratories of Pennsylvania, Philadelphia, 79 cents; Trio Chemical Works, 94 cents; Unity Sanitary Supply Co., New York, $1.20; Buckingham Wax Co., 92.8 cents.

Harley Soap Bid Low

Harley Soap Co., Philadelphia, was low bidder on item 1 of 15,000 pounds of alkaline cleaner in a recent opening for miscellaneous supplies by the New York Navy Purchasing Office, New York.

Low FSS Disinfectant Bids

Standard Products Co., Philadelphia, was low bidder on three items of disinfectant in a recent opening for miscellaneous supplies by the Federal Supply Service, Washington, D. C. Standard's bids were: item 1, 1,380 gallons of disinfectant, 54 cents; item 2, 900 gallons of disinfectant, 49 cents, and item 3, 3,300 gallons of disinfectant, 44 cents.

AF Award to Turco

Turco Products Co., Los Angeles, received the award on 6,300 gallons of paint remover with a bid of $1.84 a gallon in a recent opening for miscellaneous supplies by the Air Force for Topeka, Kans. Among other bidders in the same opening were Wyandotte Chemicals Corp., Los Angeles, $1.93; R. M. Hollingshead Corp., Camden, N. J., $2.149; Spazier Soap & Chemical Co., San Francisco, $2.107; Protective Treatments, Dayton, O., $2.44.

Low Insecticide Bids

Low bids on 85,000 gallons of insecticide for a, Atlanta; b, Columbus; c, Tracy; d, Richmond; and e, Schenectady, in a recent opening for miscellaneous supplies by the New York Navy Purchasing Office, New York, were submitted by: King Chemicals on destination a, 95 cents domestic and $1.10 export; b, $1.01; d, 99 cents; e, $1.03, fob Charlotte, N. C., 91 cents domestic, $1.06 export; destination c, De Greeve & Co., $1.2075, fob San Carlos, Calif., $1.1925.

New York AQMC Awards

The award on 1,139,000 cakes of white floating toilet soap went to Procter & Gamble Distributing Co., Cincinnati, with a bid of $19,477.28 in a recent opening for miscellaneous supplies by the Army Quartermaster Corps, New York City.

In another New York City Army Quartermaster Corps opening the awards on 119,973 one-pound cans of scouring powder went to: Federal Chemical Co., Chicago, item g, 9.39 cents each; Habow Chemical Co., Conover, N. C., item d, eight cents; Armour & Co., Chicago, item a, 6.49 cents, c, 6.2 cents, f, 5.875 cents; B. T. Babbitt, New York, item b, 6.375 cents; f, 8.75 cents.

Low Alkaline Cleaner Bid

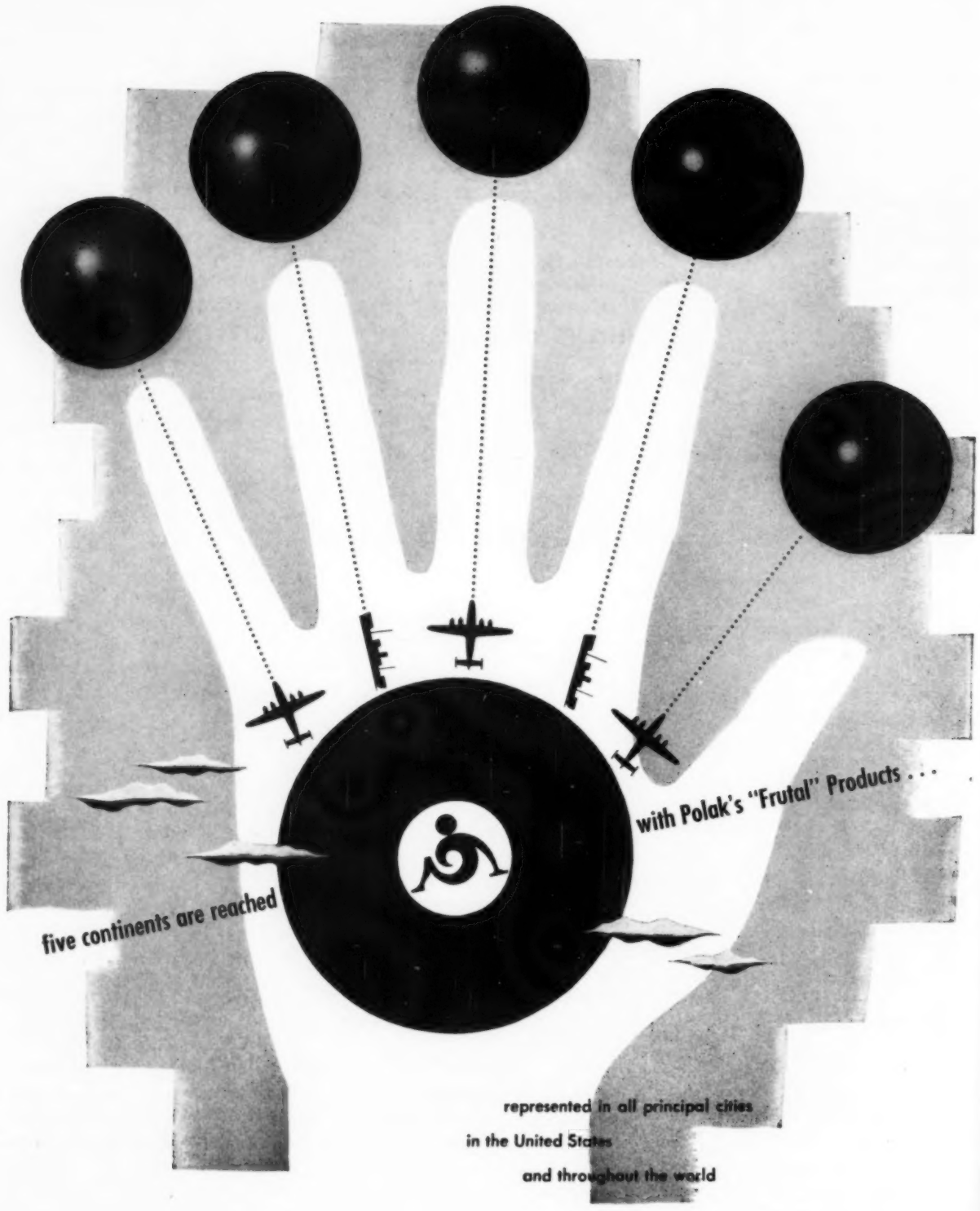
Low bidder on 70,000 pounds of an alkaline cleaner in a recent opening for miscellaneous supplies for the Frankfort, Pa., Army arsenal was Pennsylvania Salt Manufacturing Co., Philadelphia. The Pennsalt bid was 8.04 cents.

AHA Cleaning Manual

A new manual, "Cleaning and Polishing Compounds . . . How to Select and Use Them," prepared by York Research Corp. of Connecticut, was issued recently by the American Hotel Association, New York. It describes the ingredients in many commonly used products and offers recommendations for their uses from both an economic and performance standpoint.

Among the different materials covered are furniture, metal and silver polishes; porcelain, abrasive, floor, glass and mirror cleaners; scouring powders; and sanitizing agents. The results of comparative tests of brand products and the manufacturer's names are given in listings in the manual.

Further information on the study may be obtained by writing to the American Hotel Association, 221 West 57th Street, New York 19, N. Y.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carbontetrachloride	.08	8
diethyl ether	8.3	16
nitroethane	4.5	15
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cyclohexanol	3.6	40

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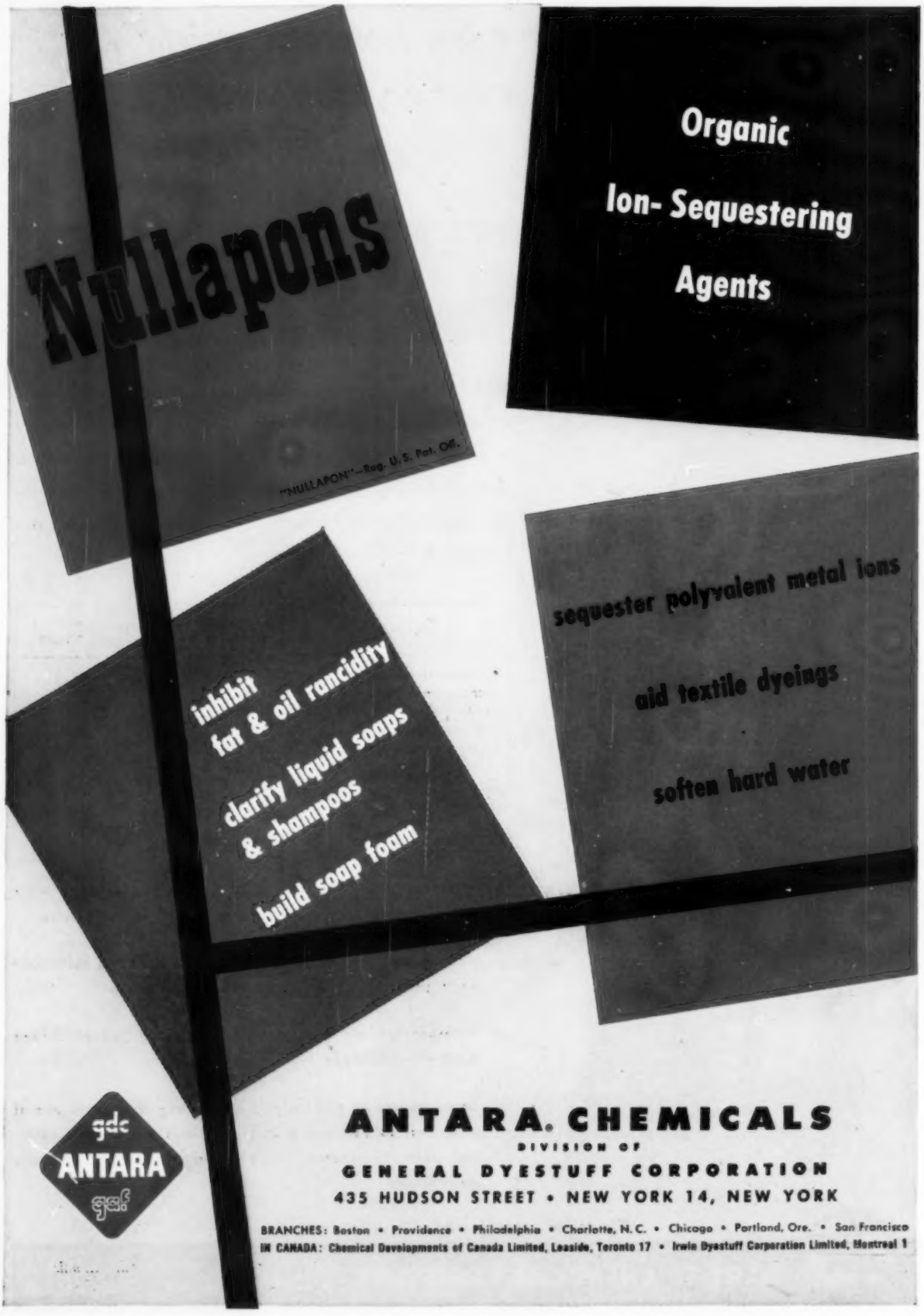
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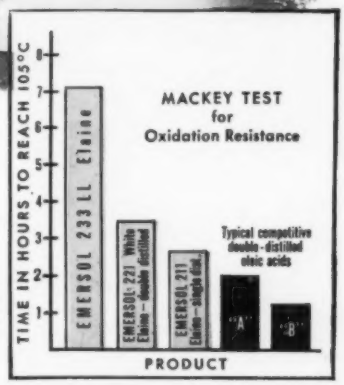

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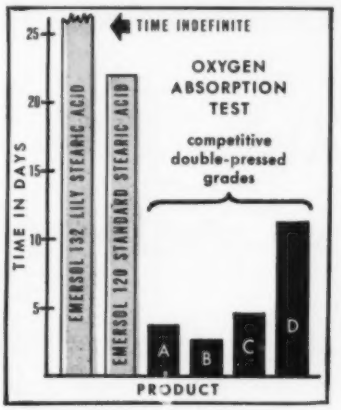

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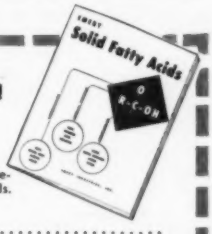

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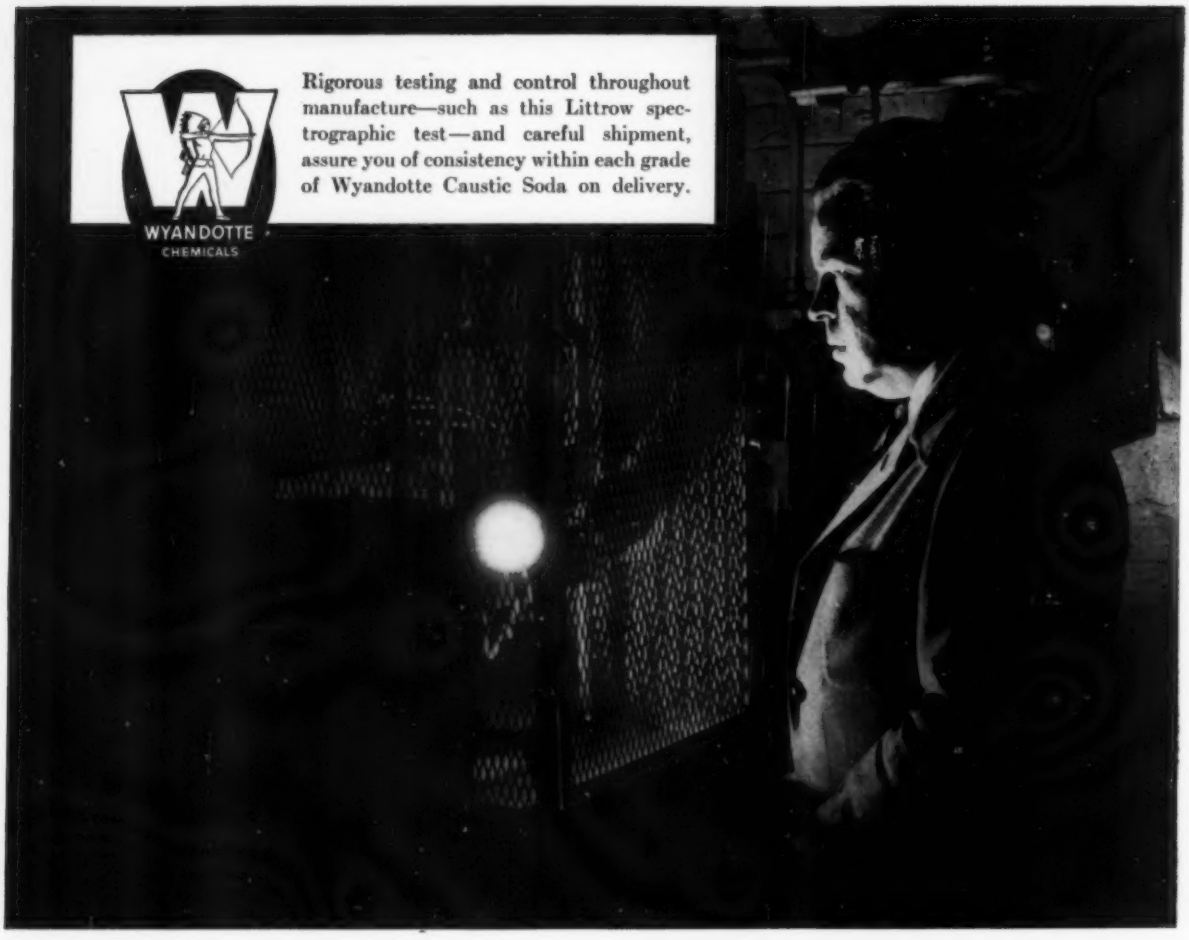
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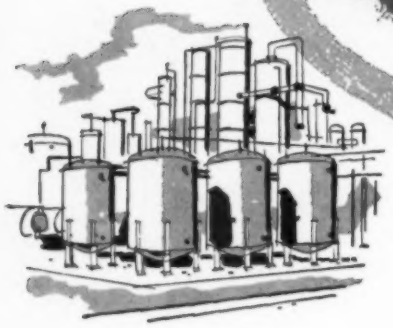

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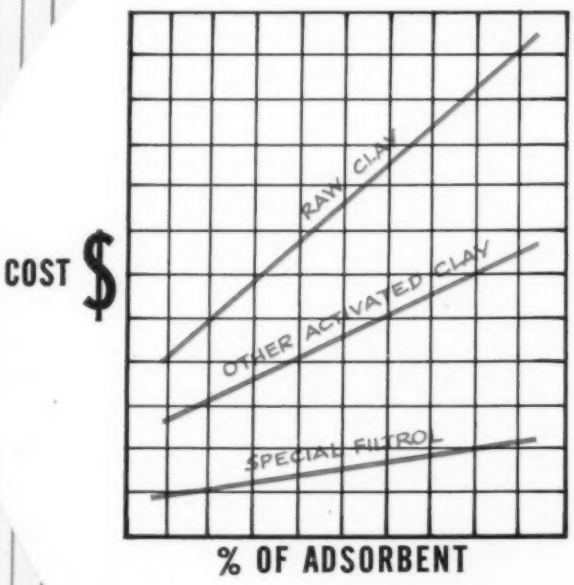

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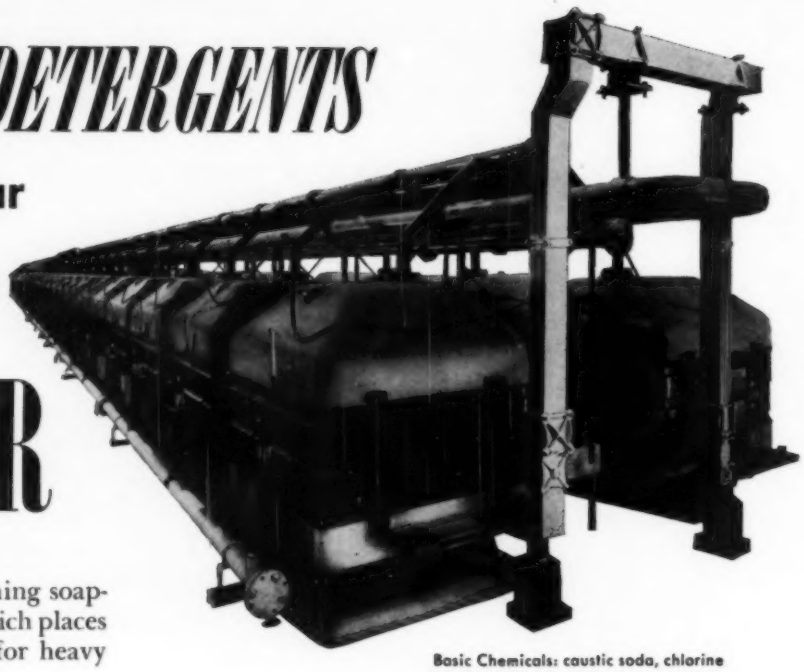

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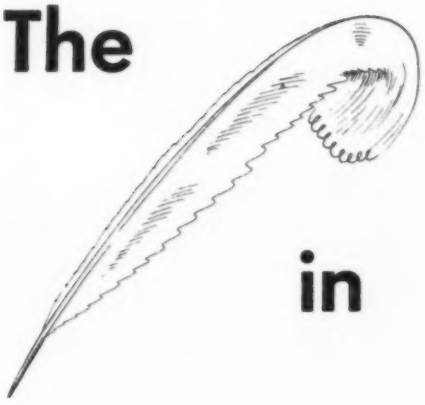
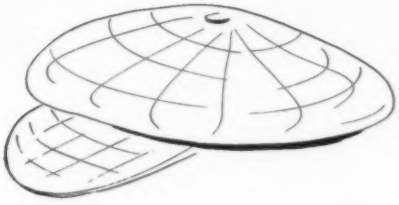
The  in our 

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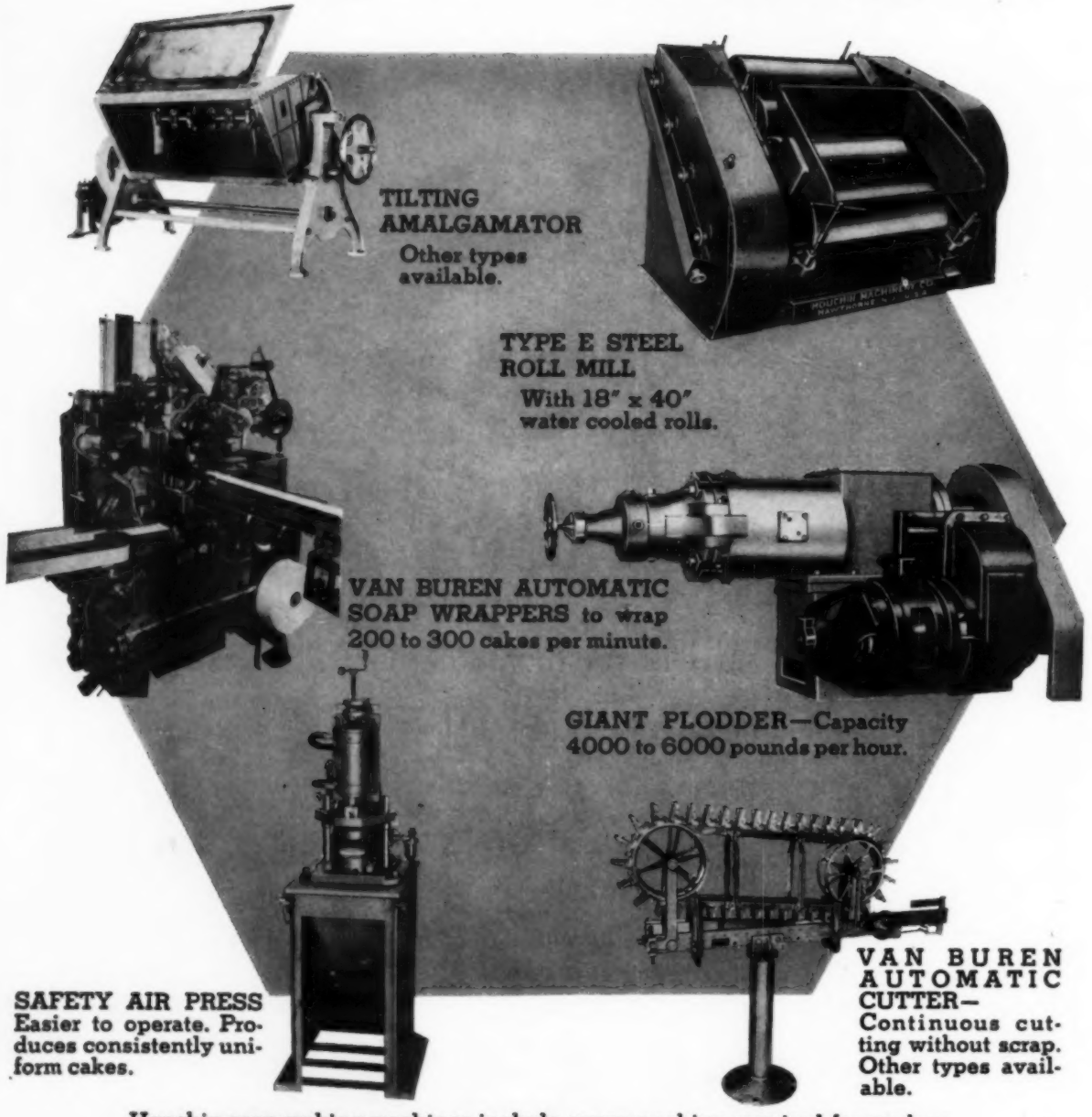

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Cold Process Soaps

COLD process soaps are generally based on a high content of coconut oil. Since pure coconut oil soaps may be irritating to the skin, it is recommended that coconut oil be used in combination with other fats, such as tallow, grease, or with some of the vegetable oils, such as castor oil, olive oil, or almond oil. Another suggestion is that superfatting agents, such as lanolin, be used. Such additives not only reduce any tendencies on the part of the soap to cause skin irritation, but also improve the lathering and solubility of the soap.

The glycerine remaining in the soap by the cold process is said to have some cosmetic value. Still another feature of cold process soap is its resistance to electrolytes, and consequent good foaming in hard water.

Although referred to as a "cold process," saponification does occur in heat. However the warmth is obtained from the heat of reaction during saponification. The process itself requires only the heat necessary to melt the fat mixture.

The essential aspect of the cold process method is the emulsification of the coconut oil, or the oils and fat mixture, with lye. Coconut oil is emulsified with half its weight of sodium lye 38° Be, at a temperature of between 25° C. and 35° C. This proportion is recognized as the "experimental value." Theoretically, a larger amount of lye should be used for complete saponification, indicating that not all the coconut oil is saponified; the unsaponified coconut oil averages about 15 per cent. However, the unsaponified coconut oil has no unfavorable action on the stability of the soap; particularly if pure oil is used, and if the soap is adequately stabilized.

The "experimental value" described above is useful only in computing the lye necessary for coconut oil soaps. When the soap is based on a mixture of oils, and the coconut oil content is less than 50 per cent, the amount of lye must be determined on the basis of saponification number. The following mixture of oils would require the indicated amount of sodium hydroxide:

	38° *Be NaOH req'd*
120 kg. coconut oil ..... (according to experimental value)	60 kg.
110 kg. tallow ..... (avg. saponif. no. 198	47.8 kg.
70 kg. castor oil ..... (avg. saponif. no. 182)	28 kg.
300 kg. fat mixture.....	135.8 kg.

If the fat mixture contains 75 per cent or more coconut oil, the experimental value may be applied to the whole mixture for the determination of lye will not affect the free alkalinity of the soap. In all other mixtures, however, the lye should be determined on the basis of saponification number.

To encourage the emulsification of the fats and lyes, it is sometimes recommended that powdered or chipped soap, or a small amount of free fatty acid be added. Practical experience has indicated, however, that the quality of the emulsion is affected by such methods. The addition of free fatty acids results in the formation of hard soap particles containing free lye. These particles cannot be removed from the soap later on, because they cannot be dissolved in the soap during the saponification process. As a result, the final cake of soap is spotty. The spots being formed by the hard particles of soap have a composition different from the mass.

The finished soap should have a maximum of one per cent free fatty acids. It is suggested, therefore, that the oil mixture be refined before use. A simple treatment with lye is usually adequate. For example: the oil is heated to about 90° C., and a warm solution of 1° Be sodium lye sprinkled over the oil. The free fatty acid in the oil combines with the lye, separating from the oil as a dilute soap solution. The upper layer of practically neutral oil may be drawn off. The intermediate layer and the thin soap may be used in the manufacture of household soap. The oil-lye mass should be allowed to stand for several hours or overnight for best results.

In emulsifying the oil-fat mixture, lye is added slowly and with continuous stirring. With the addition of a small amount of the lye, the viscosity of the mass increases and becomes turbid. It is still fluid, but, unstable, and stirring must continue without interruption. With further additions of lye, the stability and viscosity increase. When the mass becomes white and creamy, stirring may be discontinued and perfume and/or color added.

After perfuming, the emulsion is poured into molds, and the soap allowed to stand at rest for at least six hours, and if possible until the next day. During this time saponification occurs and the temperature rises to 80° to 90° C.

Saponification of cold process soaps occurs in heat obtained from heat of reaction which takes place during saponification. Process itself requires only heat needed to melt fat.

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The soap should be cut and pressed while still slightly warm. If the soap has dried somewhat prior to this operation, it should be heated slightly before pressing. In this way, the soap will be glossy, uniform and of fine quality.

Some time ago, shaving soaps were manufactured by the cold process, a method no longer used. Shaving soaps are now largely made by the half-boiled process, since this is more favorable to formulations containing a high amount of stearin. M. Fock *The Alchimist* 5, No. 11, 309,315, No. 12, 341 (1951).

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Chlorine Liquefaction

Up to 95 per cent of the chlorine manufactured is transformed to the liquid phase just prior to use, and, thus, storage and transportation costs are conserved. Whereas the conventional refrigeration systems used by the chlorine industry include brine, liquid carbon dioxide, or ammonia, an improved method of liquefaction applies a centrifugal unit employing Freon, which requires less space, less power, less maintenance and less loss of refrigerant.

The operation consists primarily of heat transfer from gaseous chlorine to the fluid Freon refrigerant to effect liquefaction of the chlorine. The Freon vapor is drawn off by a centrifugal compressor, compressed in three stages and returned to the condenser where it is reconverted to fluid Freon by heat transfer to cooling water outside the condenser. One such unit has a capacity of liquefying 65 tons of chlorine per 24-hour day.

Loss of refrigerant through leakage in the carbon dioxide system averages 1.5 pounds per ton of chlorine liquefied. This loss can be reduced, but the maintenance costs in doing so offset the value of refrigerant saved.

In the Freon centrifugal system, the refrigerant losses are only .004 pounds per ton of chlorine liquefied. Low operating pressures and a minimum of gasketed joints in the refrigerant cycle make this possible. H. J. Eichenhofern and V. N. Fedoroff. *Chemical Engineering* 58 No. 12, 142-143 (1951).

Detergents in Sewage Treatment

SYNTHETIC detergents do not cause the "curdy" precipitate that soap does with hard water; therefore, they are not wasted, as is soap, when used in hard water. Detergents, of course, are used more abundantly in hard water regions, so that sewage plants in soft water regions are less affected by any adverse properties of the surface active agents.

Due to their electrical properties, and their lack of reaction with hard water, suspended solids formation in sewage is reduced, and suspended solids removal by primary tanks is diminshed in the presence of synthetic detergents.

Due to their composition, as compared with soap, the five day B.O.D. of sewage liquors tends to be reduced in proportion to the amount of detergents present. The process of digestion of sludges in digestion tanks is not affected, but plant operating data seem to indicate that the volume of gas to be expected is diminished. Because of the electrical properties, greases tend to be emulsified and carried over from the primary tanks to the secondary processes. Synthetic detergents cause annoying nuisance factors in the form of violent frothing in those plants that employ mechanical types of activated sludge for secondary treatment.

The presence of cationic types of detergents (such as "Diaperene", a quaternary) tend to inhibit or check bacterial growth. The cationics are used extensively for their sterilizing effect in launderies specializing in washing diapers.

Presence of detergents in the raw water supply, in concentrations as low as 1.0 ppm has been claimed to cause an increase in the amount of coagulant necessary for the correct treatment of water.

Due to the varying types of detergents used and their complex reactions, no known tests have been devised for the determination of the amount of detergents that may be present in given raw sewage. One qualitative test states that if the pH of the liquor is reduced to 3.0, and the liquor is well-shaken, detergents are present if foam develops. W. A. Sperry *Sewage and Industrial Wastes* 23, No. 12, 1469-1476 (1951).

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Mazzoni Soap Cooling

An improved method of cooling soap taken from the kettle has been developed which reduces the time and labor over the conventional methods. The process is known as the Mazzoni cooling or drying method.

Soap at its normal temperature of 160° to 180° F. is taken from the kettle into a small waiting tank, from which it is pumped into a vacuum chamber. By means of a revolving pipe feed, with an appropriate nozzle, a volume of soap is sprayed on the walls of the chamber. This soap is removed by means of a rotating scraper, and falls to the bottom of the inverted cone.

At the beginning of the process, the vacuum is maintained by means of a plate, but as soon as the inverted cone is filled, the soap itself is sufficiently dense to maintain the vacuum, and it is then extruded through a normal type of pressure plate, in the form of rods. These rods drop directly into a plodder below, which is fitted with counter-rotating screws.

The soap is extruded from the plodder nozzle as a continuous bar, of pre-set width and depth. As it emerges, it engages a revolving cutter, which is set to the required length. The exact weight of the individual cake thus is set definitely.

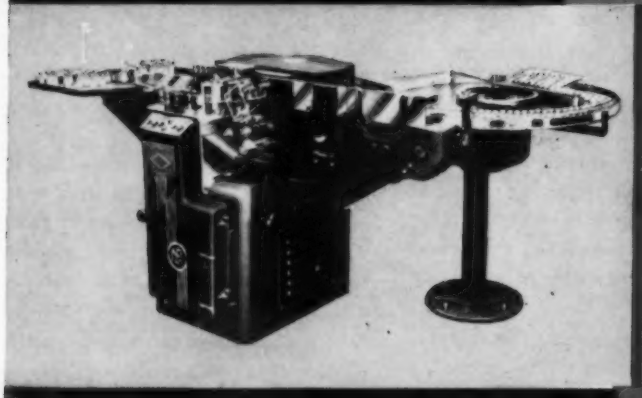
The cut cakes pass along a conveyor belt, and meet a current of cold air, which is induced by means of a small fan that directs a current of air under an enclosed part of the conveyor belt. As the cakes come to the end of the conveyor belt, they are fed directly to a stamping machine.

In one plant, the distance from the center of the plodder to the stamping machine was 21 feet. At the end of the conveyor the cakes were cool

Precision Labeling...

AT HIGH SPEED

On certain size containers the "Banks" Labeler will produce up to 240 units per minute, or 14,400 per hour. Other speeds range from 2,400 to 10,200 per hour. Each label is registered perfectly, without any trace of excess glue around the edges. The "Banks" method of applying glue directly to the label assures a tight and moisture-resistant contact.



Inexpensive label stock can be used . . . and an electric "No Bottle—No Label" device is employed to eliminate "pile-ups" of labels.

Each one of six models will take odd-sized vials, jars, bottles, etc., will label all around or part up to width capacity of the machine—from ½" up to 12" wide. Single spot labeling and front and back duplex labeling are obtainable in some models. All models can be fed either by conveyor or rotary table. Changeover can be made within a few seconds—within certain limits—and cleaning down takes only several minutes. Write for complete details.

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enough and sufficiently "skinned" to be stamped without clogging or difficulty. Immediately after stamping, the cakes are packed into boxes and cartons.

The method allows a considerable saving in time and labor, and eliminates scrap entirely. One plant using the Mazzoni method put out finished soap cakes at the rate of 60 per minute. *Soap, Perfumery & Cosmetics* 24, No. 12, 1221-1223 (1951).

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Soap Corrosion Control

Corrosion in soap plants due to attack by soap may be countered by electro-chemical deposition of nickel or chromium to a film thickness of .005 and .003 inches, respectively. Soap kettles lined with electroplated nickel or chromium, and heating coils so treated have performed satisfactorily for 21 years. Successful results also are obtained when the interiors of soap plodders are plated with nickel, and the faces of the worm with chromium; while cooling plates are protected against corrosion by depositing nickel on the faces. Electroplating can be replated in case of wear. *Indian Soap Journal* 17, No. 4, 100 (1951).

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Hard Water Treatment

The addition to hard sea water of alkali-metal fluorides or oxalates, capable of binding the cations of the hardness-causing compounds so that they form un-ionized or only slightly ionized products, provides a medium in which soap lathers as well as in distilled water. Addition of these compounds directly to the soap does not give as good results, so that a preliminary treatment of the water is recommended. British Patent 656,248.

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Synthetics Best for Wool

Studies of the relative merits of soap and alkyl aryl sulfonates in washing cotton, wool, viscose, cellulose, nylon and natural silk, indicated that while soap is a superior cleaning agent for natural silk, it is inferior to alkyl-aryl sulfonate in removing dirt from wool. There is little difference in other cases. *Seifen Ole Fette Wachse* 77, 285 (1951).

Perfuming Soap

The soap medium is generally inappropriate for incorporating perfumes, as indicated by the rapidity with which such materials evaporate when added to soap. Furthermore, the fragrance of the oils may be subjected to various changes while in storage in combination with soap.

Whereas traces of alkali and oxidation adversely affect the stability of an incorporated perfume, the reverse situation does not remedy the situation, since neutral soaps encourage rancidity.

Modern soap perfumery calls for the modification of earlier methods of incorporating the perfumes to provide the new fragrances in soap.

In one suggested method of perfumery, it is proposed to synthesize the base of the perfume, using essentially the so-called fixatives, e.g. musk, vanillin, coumarin, together with resinous fixatives and extracts e.g. oakmoss, Iris, tonka, etc., and the volatile ester. In this base is incorporated some more easily volatile perfumes to produce a suitable prominent carrier. Such perfumes are usually self fixing. Most French perfumes are founded on such a fixative base.

Lavender perfume for soaps may, for example, consist of lavender, tonka extract, coumarin, styrax, patchouli-resin, synthetic amber, etc. The bouquet including lavender oil, spike oil, terpinyl acetate, thyme oil, bay oil or sage oil is then incorporated in the base. T. Ruemele *Perf. & Essential Oil Review* 42, No. 11, 382-382 (1951).

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Glycols as Irritants

Although it has not been proved that absorption of glycols by healthy or diseased skin actually does take place, the irritating effect of glycols on the skin has been established. However, this has no practical significance as long as the concentrations are not higher than 25 per cent. A technical solvent, ether polyglycol ether, caused skin irritations 12 times more frequently than triethylene glycol.

Glycols combined with soaps and adhesive plasters will cause irritations in concentrations lower than the above, and their use in soaps therefore is not recommended. Their addition to shaving soaps and creams should not be encouraged. Prof. Schneider. *Fette und Seifen* through *Perfumery and Essential Oil Review* 42, No. 11, 377-378 (1951).

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Aliphatic Softeners

Softening agents, having good penetration, are obtained in the condensate of mixed aliphatic amines and aliphatic-substituted guanidine salts of N-aliphatic carbamic acids. The aliphatic radicals of the carbamic acids should contain 12 to 18 carbons with two to 10 mols of an alkylene oxide of two to four carbons, mixed with an anionic surface active agent, containing a single long aliphatic radical of more than 11 carbons. British Patent 655,541.

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Low Temperature Scouring

Scouring of wool by the soap-soda process involves treatment with dilute aqueous sodium carbonate at 20°, then with an aqueous soap solution, pH of 10, at 40° to 50°, to remove wool wax. The procedure often results in felting and attack of the wool by alkali. At temperatures below 40°, the wool wax is too viscous to be removed by emulsification in the detergent solution; however, small amounts (one to two per cent) of emulsified solvents added to the soap solution produce wool-wax solvent mixtures sufficiently fluid to be washed out at 20°, with consequent reduction in felting, etc. Suggested solvents include benzene, carbon tetrachloride, and toluene. W. H. Mansfield *Aust. J. Applied Science* 1, 330-337 (1950).

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Perfumes in Soaps

Unsatisfactory results in the perfuming of soap may not be due to the perfume itself, but to the malodorous fats or superfatting agents used in the manufacture of the soap, or to its excessive alkalinity. A maximum of .05 per cent free alkali should be allowed in soap. Among the other requirements of soap perfumes is the specification that the perfume should

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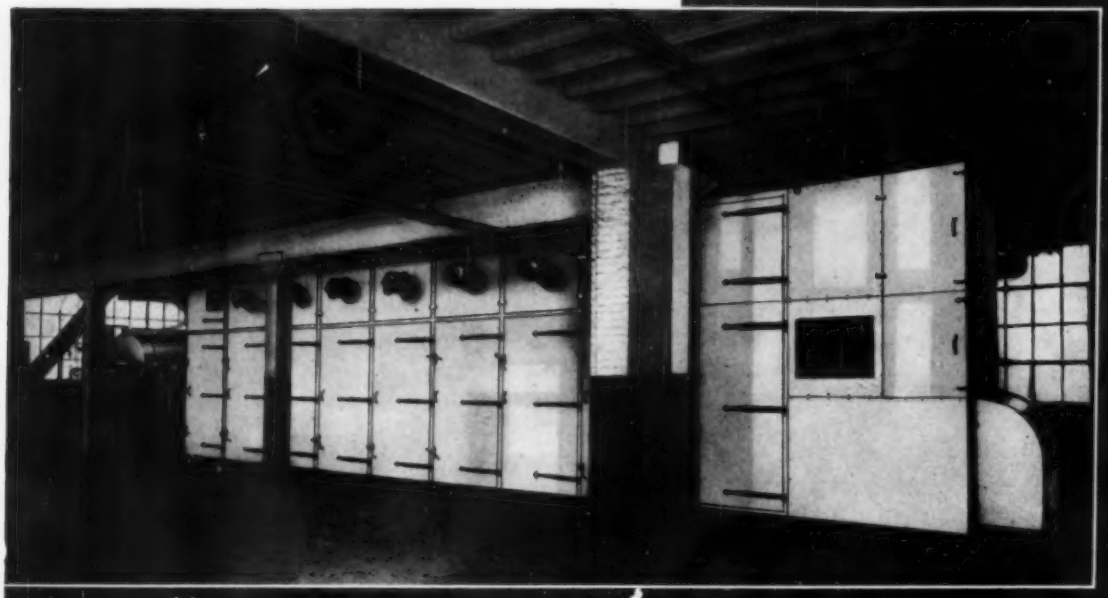

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not dry out or exhibit marked alterations in odor.

Essential oils and other natural products should be considered on the basis of their chemical composition and their reaction, over a period of time, when incorporated into the soap base. Recommended perfumes include the primary alcohols, acetals, ketones, esters, ether-oxides and musks; and in a more restricted way, in toilet soaps only, — ethers and aldehydes. Francois Harlan, *L'Industrie de la Parfumerie* through *Soap Perfumery & Cosmetics*, 24, No. 12, 1209 (1951).

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New Solvay Caustic Bulletin

The Solvay Sales Division of the Allied Chemical and Dye Corp., New York, recently announced the fourth edition of technical and engineering Bulletin 6, entitled "Caustic Soda, Properties, Solutions, Unloading and Handling". Among the revisions and additions contained in the new edition are new tables, illustrations and a chart of precautions to be observed in handling caustic soda. Copies of the bulletin are available upon request to: Solvay Sales Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.

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New Prentiss Catalog

A 52-page catalog describing the botanical drugs, chemicals, insecticide concentrates and rodenticides prepared for manufacturers by Prentiss Drug & Chemical Co., Inc., 110 William St., New York 7, was issued recently.

Designed for easy reading and quick reference, the new Prentiss catalog contains a complete listing of the diversified products which Prentiss supplies to such industries as the drug, chemical, insecticide, rodenticide, distilling, stock remedy, cosmetic, animal feed and many others.

Because a great percentage of the Prentiss products are subject to speculative fluctuation, today's market prices are not given.

Also described in the catalog are the company's processing and manufacturing facilities, foreign representation and research organization.

Syndets in Septic Tanks

Bacteriologists at Massachusetts Agricultural Experiment Station, Amherst, Mass., have been investigating the effect of synthetic detergents on bacterial activities in septic tanks, which are coming into increasing use on farms, and have concluded that results of their study to date indicate no detrimental effect.

The project was undertaken, says a progress report in the Massachusetts station's latest annual review of its activities, to provide intelligent answers to inquiries concerning the possibility that increasing household use of synthetic detergents may cause septic tanks to function improperly or fail completely and become clogged.

Involved in the study to date were 23 detergents, representing the common chemical groups into which most of the household detergents on the market may be classified. A few of the products tested also have sanitizing as well as cleansing properties.

Samples were set up in fruit jars at laboratory room temperatures and tests made for ammonia and nitrate nitrogen, hydrogen-sulfide production, settleable solids, total bacteria count and number of coliform bacteria.

"Reports to date," states the progress report, "indicate that concentrations of the agents likely to be present at any given time have no detrimental effect on bacterial activity in septic tanks. On the contrary, a few of the agents seem to increase the numbers and activities of the bacteria."

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Kiefer Filler Folder

A four-page folder on its line of liquid filling machines and the availability of its technical advisory service was issued recently by Karl Kiefer Machine Co., Cincinnati. The company's new, constant level type liquid filling machines are discussed and illustrated in the folder, and their advantages listed. This new principle in liquid filling is said to be particularly useful for filling plastic squeeze bottles.

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U. S. Stoneware Floors Book

U. S. Stoneware Co., Akron, O., recently announced the release of bulletin AB17, "How to Build Corrosion Resistant Floors". The new bulletin deals with the construction of acid proof brick floors, the uses of acid brick and the application of different kinds of cement. Designed for engineers and construction men dealing with corrosion resistant flooring problems, the book contains drawings of various types of floors and installation photos. The last section answers the most frequently asked questions on flooring.

The bulletin is available upon request from Mr. Stanley Powers, U. S. Stoneware Co., Akron 9, O.

A new machine which automatically end nails lids on boxes of mixed sizes has been developed by engineers of Food Machinery & Chemical Corp., Packing Equipment Division at Riverside, Calif., it was announced recently.

An 8 page bulletin, picturing and describing this new "Random Size Box Lidder" has just been released by FMC. The new Lidder automatically adjusts its nailing mechanism to any size box, from a minimum of 6" deep, 6" wide and 15" long, to a maximum of 18" deep, 24" wide and 50" long, end-nailing lids at the rate of 400 to 600 boxes of mixed sizes per hour.

● CIRCLED FIGURES indicate the number of different carton sizes which the user is cartoning on JONES CMV machines.

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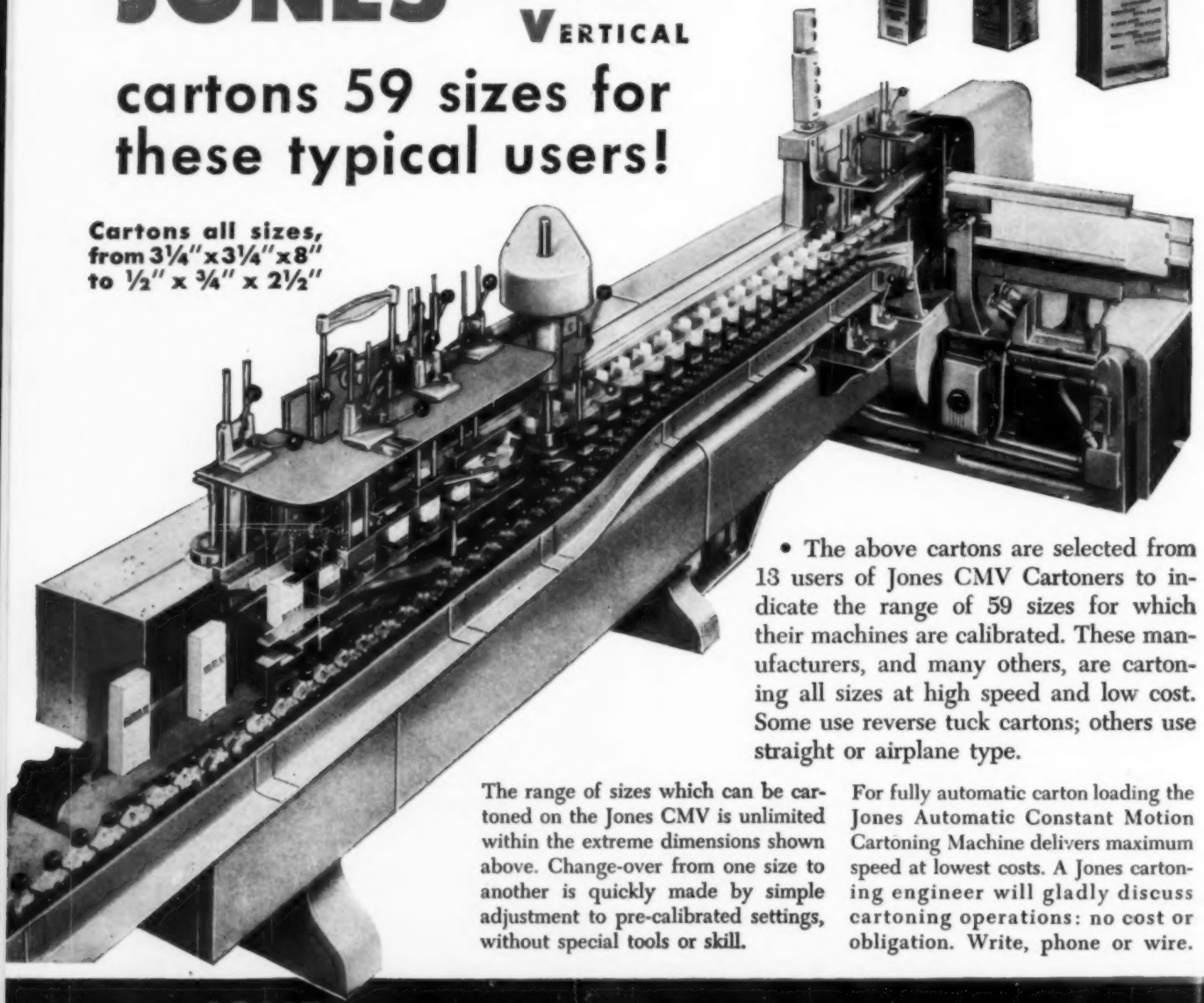
Cartons all sizes, from 3¼" x 3¼" x 8" to ½" x ¾" x 2½"



• The above cartons are selected from 13 users of Jones CMV Cartoners to indicate the range of 59 sizes for which their machines are calibrated. These manufacturers, and many others, are cartoning all sizes at high speed and low cost. Some use reverse tuck cartons; others use straight or airplane type.

The range of sizes which can be cartoned on the Jones CMV is unlimited within the extreme dimensions shown above. Change-over from one size to another is quickly made by simple adjustment to pre-calibrated settings, without special tools or skill.

For fully automatic carton loading the Jones Automatic Constant Motion Cartoning Machine delivers maximum speed at lowest costs. A Jones cartoning engineer will gladly discuss cartoning operations: no cost or obligation. Write, phone or wire.

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Cartoning Machines — Soap Presses

P. O. BOX 485
CINCINNATI, OHIO

PRODUCTION Clinic

By E. G. Thomssen, Ph.D.

THE manufacture and sale of sanitary chemicals for the most part is handled by smaller firms. Some of the companies are in the jobbing or distributing trade, selling products made by other manufacturers. As sales volume increases, the urge to manufacture a line of one's own grows stronger. An increasing number of companies in the sanitary chemical field have begun to make certain of their own trade marked products, first in a modest way, then on a larger scale. The processing equipment involved is often the simplest available and the manufacturing quarters cramped and unsuited even for light production. Such conditions have not resulted in tidy, clean plants. Since sanitary products are sold through the hygienic appeal to better health, lack of sanitary conditions in plants producing them should not be tolerated. Those in a position to do so are improving their plant layouts and resorting to "face-lifting" of manufacturing facilities by installing newer and better machinery and equipment.

To run a sanitary chemical business profitably, with sufficient volume, it is necessary to handle more items than in most other chemical industries. These products are not simple to make. They comprise items such as liquid, jelly, chip and powdered soaps; so-called synthetic soaps; compounded alkaline mixtures; powdered, liquid and paste insecticides; disinfectants; liquid waxes; deodorant blocks, etc. With such a diversified line, volume is not apt to be great in any one item, but may represent a large combined tonnage. It is necessary, therefore, to use machinery and equipment which is flexible and which may be used for making more than one item. Thus it becomes possible to make larger batches and to manufacture more economically.

The warehousing of packages and finished products in other containers, as well as accessories such as brooms, mats, sprayers, etc., may also

DR. THOMSSEN

be a problem in many buildings where space is limited.

It has been suggested by readers of this column that a resumé of the machinery and equipment required to manufacture sanitary chemical items would be valuable.

The sanitary chemical industry goes one step further than most industries in handling its manufactured products. Not only does it employ processing and packaging machinery, but large quantities of equipment are required to dispense and use up the products after they reach the hands of the ultimate consumers. Such equipment would include a variety of soap dispensers, spraying devices, floor cleaning machines and attachments, wax applicators, deodorant block holders, drip machines, deodorizers and similar devices.

Machinery and equipment will be considered under three headings: processing machinery, packaging machinery and dispensing equipment.

Processing Machinery

THE main types of processing machinery employed include dry, paste and liquid mixers; grinding equipment; sifters; pumps; filters; tanks of various kinds and refrigeration machinery. It is not easy to specify the best possible equipment for any particular plants in a general discussion such as this. Each piece of equipment must be considered separately when a plant installation is to be made. The machinery in a sanitary chemical plant must be suitable not only for making a number of items, but must be selected on the basis of the space available in the building in which it is to be operated. Considerable thought and study are necessary for the choice of the correct piece of equipment.

Dry Mixers

DRY, liquid and paste mixers are the more common pieces of processing machinery found in sanitary chemical plants. Of these, the dry mixer is used most extensively. In considering the installation of a dry mixer, several considerations should be made. Among these are the density of powdered products to be blended, the mixing of liquids into powders, the addition of color or other ingredients in small quantity, the charging and discharging of the powders into and from the mixer, dust control, the volume per day to be produced, the electric power available and the floor load the building will permit.

Dry mixers are also termed blending machines. Numerous methods of obtaining a uniform mix are employed.

The most common mixer one finds in plants of the type under discussion is the so-called ribbon or spiral blade type. Either a single spiral or double spiral blade is used for blending. The double spiral blade produces a counter flow during its operation and prevents build-up at the ends of the horizontal mixing chamber. The discharge from these mixers is either in the center or at one end of the bottom. Ribbon mixers are available in capacities of a pound or two to several tons. They may be charged from floor level by a suitable elevator. They are often equipped with a revolving sifter located over the top of the mixing chamber. Such mixers are best adapted for mixing light to medium weight powders. Good blends are possible by their use. In introducing in-

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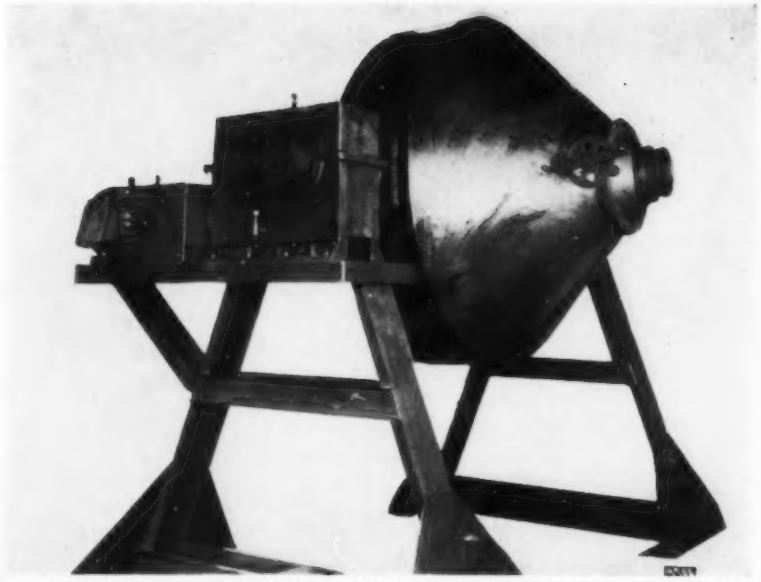


Gemco Double Cone, conical blender, made by General Machine Co. of Newark, New Jersey, handles a wide variety of powdered materials.

gredients that represent small percentages, say under five percent, it is advisable to premix them with part of the other powders before adding to the large batch. A smaller mixer is often used for this purpose, assuring better blends.

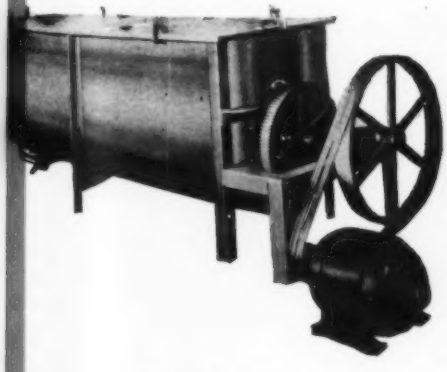
In cases where heavy powders are mixed or liquids and pastes are blended into powders, the ribbon type mixer is not too efficient. Under such conditions it is customary to employ a mixer having revolving paddles of various designs on the mixing shaft. In some cases the outside shell and paddles revolve in opposite directions as is best illustrated by the ordinary concrete mixer. The efficiency of paddle mixers is dependent upon the design of the paddles and the type of mix being processed.

Instead of using the horizontal type mixer with paddles, some plants prefer a vertical mixer, especially if lighter weight products are blended. One finds such mixers used quite generally in smaller feed mills. They are very useful for mixing hard soaps, using corn meal, wood flour or ground corn cobs. Vertical mixers usually are designed for floor level charging and discharge at barrel height. This type mixer merits consideration because of these features. Good blends are obtainable by their use.

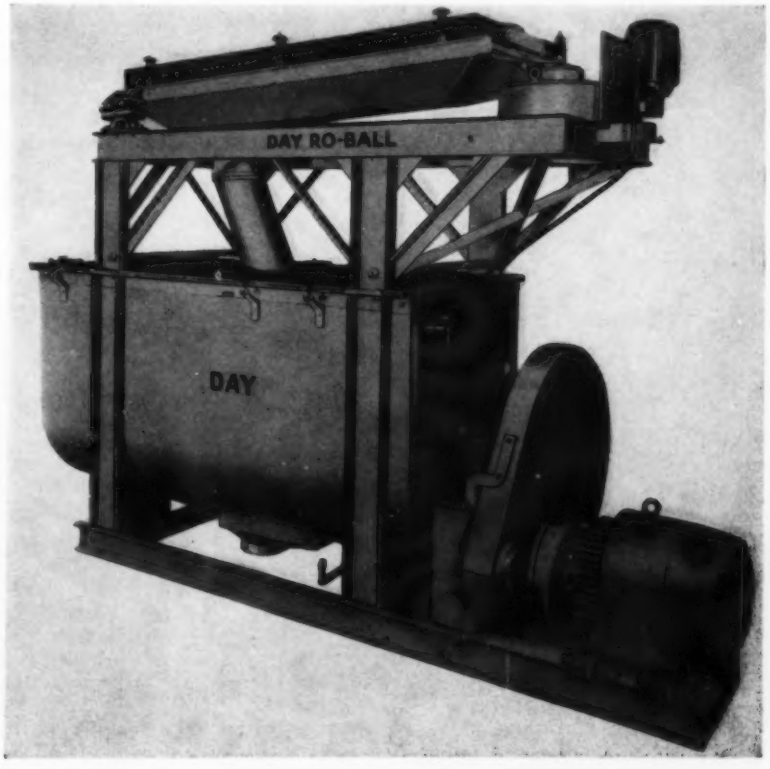
Cone or tumbling type, dry mixers are used in certain instances. A rapid and thorough mix is possible through their use. Such mixers usually consist of a double cone or twin shells welded at an acute angle with the driving shaft attached at or near the union of the two cones. A gate is installed at the small end of the cones for the charging or discharging. The advantage of such mixers is that they will handle all kinds of powdered materials. In addition the inner surface is free from all obstructions, thus assuring a rapid clean discharge. Where different products are processed, it is relatively easy to clean out between batches. Cone or tumbling mixers come in various sizes from six inches

(*Turn to Page* 106)

A double spiral agitator with paddles for handling dry powders, granular materials, pastes, etc., made by George G. Rodgers Co., New York.



Another type mixer or blender of dry materials is the spiral blade "Day Ro-Ball" mixer of J. H. Day Co., Cincinnati, with sifter screen on top.



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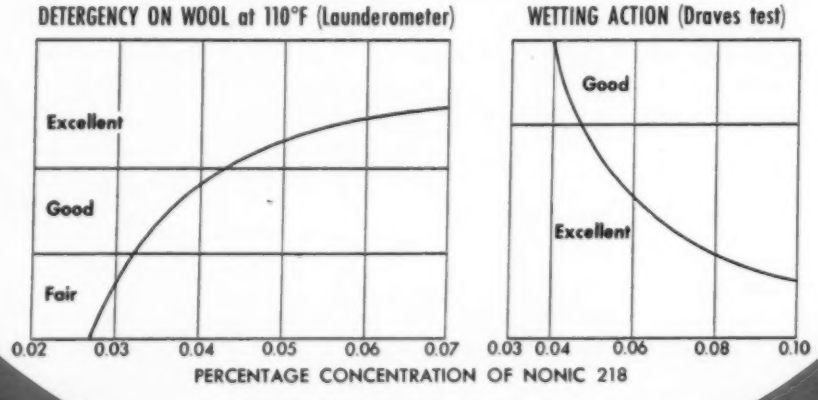

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	Parts		
	I	*II*	*III*
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Tylose A 400 methyl cellulose	8-10	8-10	8-10
water	27	—	52
glycerol	4	10	3
alcohol	42	20	—
propyl alcohol	—	5	10
trichlorethylene	19	35	25
methylene chloride	—	22	—

Slawitz, *Parfumerie & Kosmetik* through *Perfumery and Essential Review* 42, No. 11, 379 (1951).

Catalysts for Synthetics

In the manufacture of alkyl aryl sulfonates, aluminum chloride is the catalyst for the alkylation step (Friedel-Crafts reaction). The akyl portion is derived frequently from a kerosene distillate fraction, obtained from the refining of paraffinic crudes. This fraction is chlorinated with chlorine gas prior to alkylation. The catalyst is usually iodine.

In the manufacture of the long-chain (C_8 to C_{18}) alcohol sulfates, the alcohols are prepared by high-pressure catalytic hydrogenation of natural oils with a copper-chromium oxide catalysts, or by low-pressure reduction with sodium hydride. *Chemical Engineering* 58, No. 12, 165 (1951).

Lathering Detergent

A new detergent product, containing both a saponified detergent and saponifiable compound plus alkali is said to provide improved lathering properties. In theory, the saponified detergent performs its normal cleansing action, and after it is absorbed or combined with the dirt the saponifiable material combines with the alkali and provides further lathering and washing.

In one example, coconut oil (15 parts by weight) is peptized by adding a mixture of sulfated secondary alcohols (5 parts) and combining with 80 parts of a powdery detergent. The detergent is made up of 20 per cent gum acacia, 10 per cent caustic soda, 40 per cent sodium carbonate, and 30 per cent water. Finally, 10 parts of sodium carbonate are superficially ground into the detergent-alcohol-oil mixture. In use, the washing solution is raised to more than 80° F., and saponification of the coconut oil results in further lathering. B. P. 656,544.

Refining of Foots

A sample of eight to 10 grams of the paste is dissolved by warming in 77 cc of a 2:1 dioxane-water mixture. This solution is then titrated against *N*-hydrochloric acid, using five to 10 drops of a .2 per cent bromocresol green solution as indicator. The end point will be yellow and the neutral oil in the paste is hydrolyzed. The resulting acid oil is extracted three times with ethyl ether, using 25 cubic centimeters of the solvent each time. The ether is driven off subsequently from the united extracts, and the residue dried and weighed. This gives the total of fatty acids and neutral fat present in the sample. J. P. Wolff *Oleagineux* 5, 646 (1950).

Nitrate Rust Preventive

Rust and metal corrosion preventive properties are attributed to a slightly volatile amine nitrate offered to industry by Shell Oil Co., New York, under the trade name of "VPI." The product is a powder-like substance which gives off vapors. These are carried by convection and diffusion to surfaces of metal in the vicinity, condensing to a thin protective layer. Besides protection against rusting, the product is said also to inhibit corrosion at any advanced stage. One gram of VPI is said to guard a cubic foot of metal parts for a period of up to one year. Solutions of two to four per cent are said to be effective in protecting processed metal parts. It is recommended, in using VPI, that the parts to be protected be no more than two feet from the VPI source.

Furniture-Floor Polish

A formula for a general purpose polish, for cheap furniture, stove enamelled metal, and cleansing floors is said to consist of an oil (paraffin), rosin, aqueous ammonia, and water, with optional use of glycerol and pigment. In one example one kg. of rosin is stirred into two liters of kerosene at 130° until dissolved or dispersed; then one liter of 7.5 per cent ammonia is added at 75° and the mixture stirred until cool. The whole is then poured into a tray, to a thickness of about two centimeters, to form a firm jelly (about one hour). The jelly is passed through rollers to form a smooth paste. British patent 644,692.

Pine Oil Frothing Agents

The major and "active" frothing component of pine oil is terpineol. However, the pine oil itself is claimed to give better frothing than pure terpineol. Froth stability tests on aqueous solutions of three samples of pine oil and the major pine oil components indicated that the components could be grouped either as "frothers" or "froth stabilizers". In the first group are included terpineol, borneol, and camphor. The second group includes anethole and dipentane. W. Gibb, *Chemistry and Industry No.* 43, 907 (1951).

Alumina Gel Toothpaste

A toothpaste based on aluminum hydroxide gel, combined with other substances used normally in toothpastes, such as precipitated chalk, glycerol and flavoring, is said to have improved cleansing properties. The gelatinous alumina adsorbs not only organic residues, but also bacteria, and has rinsing, bleaching and disinfectant properties. It is suggested that the aluminum gel be used in an amount of 10 to 50 per cent by weight of the toothpaste. British Patent 657,950.

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NEW Patents

The information below is furnished by patent law offices of

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The data listed below is only a brief review of recently issued pertinent patents obtained by various U. S. Patent Office registered attorneys for manufacturers and/or inventors. Complete copies may be obtained direct from Lancaster, Allwine & Rommel by sending 50c for each copy desired. $1.00 for Canada. They will be pleased to give you free preliminary patent advice.

No. 2,570,023. Parasiticidal Steam-Cracked Oil Emulsion Concentrate, patented by Carl S. Carlson, Elizabeth, and Miller W. Swaney, Westfield, N. J., assignors to Standard Oil Development Company, a corporation of Delaware. The patent describes a parasiticidal oil emulsion concentrate comprising a highly aromatic, synthetic, steam-cracked petroleum paraffin gas oil fraction, said synthetic fraction having been cracked at a temperature in the range of 1100° to 1500° F., and having a specific gravity in the range of 1.00 and 1.125, a boiling point in the range of 625° to to 775° F. a kauri butanol value in the range of 80 to 104 and a dimethyl sulfate value in the range of 14 to 100, in combination with a water soluble emulsifying agent.

No. 2,575,098. Insecticide Formulation, patented by Chester C. Crawford and Lloyd L. Jaquier, Jr., Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware. An improved insecticide is described consisting essentially of a mixture of branched chain paraffin hydrocarbons boiling in the range from 360° F. to 410° F., said mixture having the property of increasing the insecticidal power of an insect poison dissolved therein as contrasted with the lack of such a property in a kerosene insecticide solvent; and at least one insect poison soluble in said mixture of branched chain paraffin hydrocarbons.

No. 2,575,526. Method of Separating Fatty Acids, patented by Latimer D. Myers, Cincinnati, Ohio, assignor to Emery Industries, Inc., Cincinnati, Ohio, a corporation of Ohio. The patent covers the method of obtaining batches of mixed fatty acids of different melting points, said method comprising preparing fatty amides, dissolving the fatty amides in a solvent, lowering the temperature of the solvent to precipitate part of the fatty amides dissolved, separating the precipitated fatty amides from the fatty amides remaining in solution, separating the fatty amides from the solvent, and converting the fatty amides into corresponding fatty acids.

No. 2,570,051. Insecticidal Composition Containing Beta - (Tertiary-Alkyl Thio) Alkanols, patented by Lawrence T. Eby, Roselle, N. J., assignor to Standard Oil Development Company, a corporation of Delaware. Described is an insecticidal composition containing a beta-(tertiary-alkyl thio) alkanol in which the alkanol radical linked to the S atom has from two to four carbon atoms inclusive, as the active ingredient admixed with an emulsifying agent which lowers the surface tension of water and thereby promotes aqueous colloidal emulsions of the active ingredient.

No. 2,571,663. Refining of Fatty Acids, patented by Ward J. Bloomer, Westfield, N. J., assignor to The Lummus Company, New York, N. Y., a corporation of Delaware. The method of resolving a mixture of the fatty acids derived from soy bean oil into a fraction containing substantially only unsaturated acids and a second fraction containing substantially only saturated acids is described which comprises feeding a mixture of the fatty acids having an iodine number of approximately 137 (Wijs) to a mixing device and mixing said acids with non-toxic ethyl alcohol, reducing the temperature of said mixture to below —10° F., continuously filtering said mixture, washing the filter cake and separating as a filtrate approximately 85 per cent of the charge as unsaturated acids having an iodine number in excess of 160 from the remainder of the charge as saturated acids having an iodine number less than 10.

No. 2,573,899. Solvent Fractionation of Glyceride Oils, patented by Stephen E. Freeman, Pittsburgh, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania. The patent covers a process of treating a natural glyceride oil which contains fractions of different degrees of unsaturation in order to obtain therefrom a fraction comprising relatively highly saturated glycerides, a second fraction comprising relatively highly unsaturated glycerides, and a third fraction comprising free fatty acids and unsaponifiables which process comprises dissolving 10 to 25 per cent of naphtha in the oils, effecting an initial fractionation of said oils by extraction with furfural to obtain two liquid phases, one comprising the more highly saturated glycerides containing a small amount of furfural dissolved therein and the second comprising the more highly unsatuarted glycerides, free fatty acids and unsaponifiables dissolved in furfural, then treating the latter phase with naphtha to split it into two additional phases, one comprising the more highly unsaturated glycerides dissolved in the naphtha and the other comprising furfural containing dissolved therein the major portion of the unsaponifiables, free fatty acids and a minor amount of glycerides of a relatively highly unsaturated nature.

No. 2,573,900. Treatment of Glyceride Oils, patented by Stephen E. Freeman, Pittsburgh, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania. In a method of treating an oil comprising a mixture of glycerides of different degrees of unsaturation, the steps are patented which comprise extracting the oil with sufficient furfural to provide a liquid furfural solution which contains relatively more unsaturated glycerides and a second liquid phase which contains relatively more saturated glycerides, separating the furfural phase, removing a substantial portion of the furfural therefrom and extracting the resulting liquid residue with a liquid aliphatic hydrocarbon.

A method of treating unsaturated glyceride oils which contain fractions of a different degrees of unsaturation also is covered, which comprises introducing glyceride oil into an intermediate point in an extraction column, introducing selective polar solvent into the column at a point above the oil inlet and liquid aliphatic hydrocarbon into the column at a point below the oil inlet whereby oil and hydrocarbon flow countercurrently to the polar solvent, and withdrawing an oil raffinate from the upper portion and a polar solvent solution of the more unsaturated glycerides of the oil from the lower portion of the column from which polar solvent solution the liquid aliphatic hydrocarbon has pulled out relatively more saturated glycerides.

No. 2,572,429. Aluminum Soap Composition, patented by Kenneth D. Ashley, Stamford, Conn., and Scott Mason, Pound Ridge, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine. A soap composition is patented consisting essentially of aluminum salt of a mixture of about 1 per cent to 20 per cent by weight of dimerized polyunsaturated fatty acids of 18 carbon atoms and about 99 per cent to 80 per cent of monomeric fatty acid of 12-22 carbon atoms.

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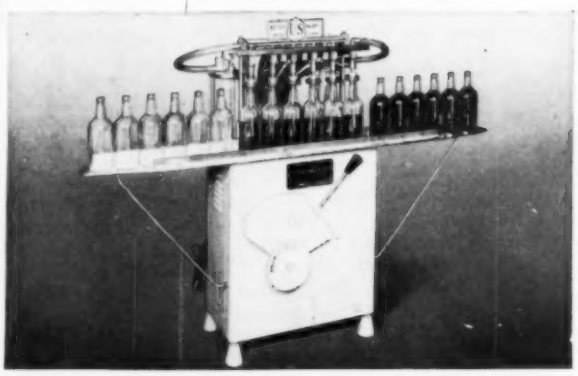

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SOAP PLANT *Observer*

By John W. McCutcheon

STUDIES on detergency have continued to occupy the attention of soap and detergent chemists. The last instrument noted in this column for its measurements was the Terg-O-Tometer or Terg-O-Meter (May 1949) manufactured by Baker Instrument Co., Orange, N. J. This instrument was a throw-back to the simple oscillating home washer reduced to laboratory size. The idea behind this development was to make the test more closely parallel to actual working conditions. One purchaser of this equipment, after almost three years of use, is still quite enthusiastic over the results obtained by it.

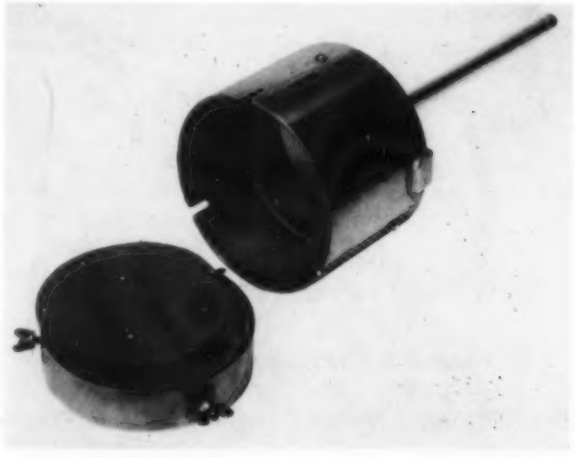
Now a new star* appears on the horizon: the Deter-Meter, made by American Conditioning House, Inc. of Boston, Mass. With this instrument a circular swatch of cloth is held loosely in a cylinder between two perforated plates or screens. The cloth bounces up and down as the cylinder is oscillated vertically in a detergent solution immersed in a constant temperature bath. The mechanical action of the device is practically all impact. Any friction on the cloth is held to a bare minimum.

In the Launderometer (Atlas Electric Devices Co., New York) the mechanical washing action is supplied by small metal or rubber balls giving both impact and friction. With the Terg-O-Tometer, the emphasis is on friction.

The Deter-Meter was developed for the U. S. Army Quartermaster Corps. Its basic principle is scientific. If mechanical impact is a stable component of detergency, then it is logical to go one step further and raise the question—why not an instrument for detergency based on purely liquid impact such as an ultrasonic machine? Perhaps I should get a rain check on this idea for a future patent! !

INQUIRY reveals that "G-11" and "G-4" continue as interesting adjuncts to soaps and synthetics. When added to liquid synthetics, it appears that a slightly larger amount is necessary than when added to a similar type soap product. This seems strange in view of the fact that most germicidal products show a maximum potency at low pH values. Can this action possibly be due to the fact that in the soap rinsing operation, the lime soaps tend to cling to the surface of the skin and hence retain a small

New "Deter-Meter" (right) is made by American Conditioning House, Inc., Boston, for measuring detergency. Instrument features cylinder (below), which holds circular swatch between two perforated discs or screens. Cloth bounces up and down as cylinder is oscillated vertically in detergent solution immersed in constant temperature bath.



*See "Precision Instrument for Detergency Studies," by H. J. Wollner and G. S. Freeman, *Am. Dyestuff Reporter 40*, No. 22 693-6 (1951).

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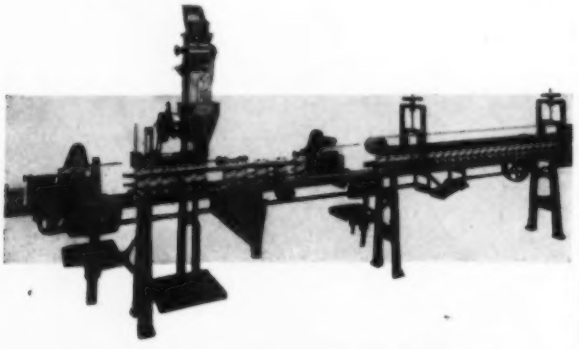

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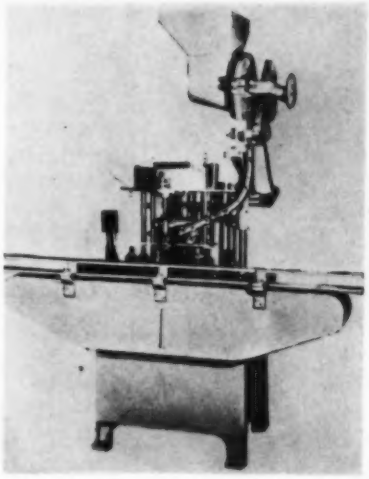
amount of the deodorant with them? Why not label a little "G-11" with some tracer elements and run this point to a conclusion?

THE recent announcement that Hercules Powder Co. is building a plant for the production of, among other things, cymene alcohols useful as intermediates for the production of wetting and ore flotation agents is of interest. Methods used are to be based on formation of hydroperoxides through a special process developed by the research staff of the company over a fifteen year period. This news in itself is an interesting item for the soap and detergent industry, inasmuch as it provides just one more source of raw material for surface active agents and provides just that much more competition for such basic materials as tallow and grease. Another point, more significant in the writer's view, however, is the value of a long term research program to develop a practical outlet for a rather unattractive natural product. Present industrial development can almost be measured by the amount of money spent in such fashion. Those companies who have been far sighted enough to see this, have consolidated and expanded their positions.

The fat and oil industry has been aware of the advantages of research and development as evidenced by the rapid growth of fatty acid production. At the present time this is estimated at about 600 million pounds per year. A healthy part of this production is converted into derivatives due largely to the research efforts of a comparatively few producers. In the case of animal fats, this effort has been confined largely to the packers. The renderers, being smaller and more numerous, are not able to carry on work of this kind individually, although they represent about half the total production with an annual value of about $70 million dollars. It is unfortunate that in the face of present low prices (6-7¢) and increased competition from raw materials outside the fat field, they could not collectively underwrite a program of development work to do something to increase the value of their product. Even a one cent a pound increase in price through the creation of new outlets and greater demand would represent a collective gain of some million dollars a year.



The cap feeding hopper of the "Tite-Cap" fully automatic screw capper has been redesigned to enable it to handle all caps without the necessity of making adjustments or changes. The new hopper is equipped with a revolving drum which keeps the caps in gentle motion and thus prevents them from sticking together. Discharge of the caps is via chute at the bottom of the hopper as compared with top discharge formerly used. The manufacturer is Tite-Cap Machine Co., Inc., 57 Rose St., New York.

New D&O Catalog

Dodge and Olcott, Inc., New York, recently announced the publication of a new catalog listing of the company's lines of flavors and colors. The new catalog contains a complete outline of D&O products and services. Copies of the new catalog are available on request.

New Work Glove

A new, long-wearing, all-purpose work glove with special coating is described in a bulletin issued recently by the Mine Safety Appliances Co., Pittsburgh, Pa. The following advantages are claimed for the new glove: it is plastic coated and resists chemicals, particularly strong acids such as sulfuric acid and oleum; it will not become "tacky" at high temperatures to which workers' hand are normally exposed, nor will it stiffen in very low temperatures; seams are straight and there is no excess material in the finger crotches.

M.S.A. all-purpose work gloves are available in fully coated or ventilated back styles, with smooth or rough finish.

New Penn Salt Detergent

Pennsylvania Salt Manufacturing Co., Philadelphia, has recently announced the development of a new "one-shot" detergent, "Pensal W," designed for industrial laundering of heavily soiled garments and fabrics. The new heavy duty detergent, designated a "work horse" detergent was developed at Pensalt's Whitemarsh research laboratories. The product has been field tested in a number of industrial laundries and under varied water conditions.

"Pensal W" is offered for domestic use by Pennsalt's laundry and dry cleaning department and in other countries by the Pennsalt International Corp. The new detergent is being manufactured at the company's Wyandotte, Mich. plant and is packaged in polyethylene-lined multi-walled paper bags.

New West Floor Cleaner

An industrial floor cleaner, which is said to deodorize and lightly wax, as well as clean surfaces to which it is applied was announced recently by West Disinfecting Co., Long Island City, N. Y. The new cleaner, "Pine Lustreclean," is a liquid formulation that may be used on wood, composition tile, asphalt tile, mastic, linoleum, cork, terrazzo and painted or varnished floors, as well as walls, woodwork and similar surfaces. A cup of the cleaner to a gallon of water is the recommended dilution for light, glossy finishes. No rinsing is required, according to the maker, and usual cleaning methods, by mop or scrubbing machine, are sufficient. The finish can be improved by light buffing when dry. Non-abrasive and non-inflammable, "Pine Lustreclean" is not intended to deposit as heavy a wax coating as conventional water emulsion waxes, but is designed as a labor-saving material for maintaining floors, walls and other painted surfaces.

Production Clinic

(*From Page 97*)

up to six feet or more in diameter. During the mixing operation they are dustless. Power consumption to drive them is low.

In a limited number of cases, change can mixers are used. These are used more generally for paste mixers and will be considered later.

Frequently it is found that the powdered materials are too coarse to blend correctly with finer mesh materials or, if a product is colored, the dye is not distributed evenly. In such cases, it is sound to pass the finished mixed product through a mill or grinder. This assures more perfect blends.

Other points to remember in mixing powders, and liquids, are that weighing each batch may be simplified by the use of proportioners such as automatic, multiple ingredient scales which handle any dry or liquid materials. Spraying the liquid into the powders prevents lumping and assures better distribution.

(*To be continued*)

Castor Oil Substitute

CASTOR oil is used for many applications. Spencer, Kellogg & Sons, Buffalo, N. Y., recently introduced a substitute called "Kelcastol." This product possesses several of the desirable properties found in the natural oil: high viscosity, non-drying characteristic, complete solubility in alcohol and methanol, and amber color. It may be used to replace castor oil for many industrial applications.

Floor Cleaning Machine

A FULL automatic floor cleaning machine that scrapes, sweeps and vacuums a floor rapidly with a minimum of labor was developed recently by G. H. Tennant Co., Minneapolis, Minn. This machine loosens even the tightest packed grime on floors, provided a special type cylinder that grinds off the dirt is installed. It then sweeps the dirt up and sucks in the lighter, loosened soil. The operator rides on the rear of the machine, which can be maneuvered readily through a rear wheel drive. The machine operates at speeds up to 11 miles per hour. The heavier loose dirt is collected in a hopper which may be raised or lowered for dumping by the push of a button.

Uses of Butyls

COMMERCIAL Solvents Corp., New York, called attention recently to possible uses of butanol and butyl acetate in the chemical specialty field. Applications include their use in making herbicides, metal cleaners, hydraulic fluids and as selective extractants. Information regarding these and samples are available upon written request.

Alkylamines

ROHM & HAAS CO., Philadelphia now have a number of new alkylamines, 12-15 or 18 carbon amines, available in commercial quantities at new low prices. The company will send technical literature and samples to interested manufacturers. Among the uses of interest to our readers are those as surface active agents, bactericides, fungicides and corrosion inhibitors.

Another Rohm & Haas product that may be of interest is the Monobed method of using acidic and basic ion exchange resins for water purification. Through this method very pure water is obtained from any type of raw water by one passage through a column of these resins, which are trade marked "Amberlite." Information is available upon request.

Clean Compressed Air

COMPRESSED air is an asset in almost any plant. In many cases one hesitates to use it in processing operations such as agitating liquids. Nash Engineering Co., South Norwalk, Conn., builds a compressor that delivers clean air, free from dust or other contamination, without the use of filters. This compressor which has but one moving element is simple in construction and durable. Internal lubrication with oil, which often causes contamination, is dispensed with. The compressed air is delivered without the necessity of after coolers and under non-pulsating pressure. The cost of this compressor's maintenance is unusually low.

Corrosion Proof Utensils

METALSMITHS, a division of Orange Roller Bearing Co., Orange, N. J., have a catalog of interest to our industries. This illustrates, describes and gives prices for a varied line of stainless steel and Monel utensils like liquid measures, funnels, pails and dippers. Their products are built for long durable service.

Rapid Bagger

ANDERSON BAGGER, Model 134, made by Anderson Bros. Manufacturing Co., Rockford, Ill., fills various sizes of bags rapidly and easily. The adjustments are designed for height and tilting the bag to suit the operator's comfort. The bag trough has a capacity for 200 bags and the machine includes an air filter which opens the bag and keeps foreign matter out of the empty bags. A bulletin is available on this machine.

Non-Slip Surfacing

AN easy to apply mineral coated fabric, known as "Safety Walk," is made by Minnesota Mining & Manufacturing Co., St. Paul, Minn. It may be applied to areas on which plant employees are apt to slip and fall, such as steps, ramps, etc., by merely stripping off the liner and pressing onto the surface. Perfect traction is possible even under water, oil or grease. The company will send a free sample and further information upon written request.

New Tubing

U. S. STONEWARE, Akron, O., features new "Tygon" laboratory and hospital tubing for use in chemical laboratories. It is clear, flexible and elastic, inert chemically, nontoxic, may be steam sterilized and will not become brittle or deteriorate as it ages. Quick, pressure-tight seals may be easily made with the tubing, which is clear for ready visibility of solutions passing through it. Other properties, too, make it a useful laboratory material.

Sanitary Chemicals Section

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Liquid Castile Soap Shampoo
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40%, 30%, 20% Coconut Oil
Potash Vegetable Oil
Soft 40%, Hard 65%, Scrub 20%

PHARMACEUTICAL

U.S.P. Green Soap
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Powdered Coconut Oil Soap

30 years in business and one of America's leading manufacturers of soaps ONLY is a testimonial to the standard quality of our products.

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KRANICH SOAPS

You Really Deodorize when you use...

ONYX BTC*

There are quite a few ways of "deodorizing."

You can use: the "block-off" method whereby the olfactory nerves are made less sensitive to odors, thus making the odors less noticeable.

You can use: the "odorizing" method . . . whereby the odor you want to kill is covered by another one, more or less pleasant.

Onyx BTC* does the job in one sound way—it kills the micro-organisms that cause the odors. No multiplication of these organisms . . . no odor. It's as simple and effective as that. And BTC solutions are themselves odorless.

ONYX BTC*
GERMICIDE... DISINFECTANT... DEODORANT

Onyx BTC is an alkyl dimethyl benzyl ammonium chloride, sold in 50% aqueous solution to manufacturers of disinfectants, sanitizing compounds and similar products for incorporation in their products and/or dilution for sale as a sanitizing material.

It has been the most widely used concentrated cationic bactericide for many years. Its use as a deodorant is stressed because its effectiveness for this purpose is often overlooked in view of its remarkable properties as a sanitizing agent.

*Basic Facts about Onyx BTC**

Stable
Non-Corrosive
Uniform
Non-Toxic in use-dilutions
Odorless
Field-Proved
Non-Irritating
Tasteless

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Write for the BTC Handbook!

If you are considering the use of quaternary ammonium salts in any of your products . . . or if you are now using one of these salts for any purpose, you will find the ONYX BTC HANDBOOK useful as well as informative. It covers the characteristics and applications of this standard quaternary compound, and in addition describes some of the many other "quats" produced by Onyx.

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Buffalo Gnat

Fruit Fly

Silverfish

Angoumois Grain Moth

U.S.I.

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Spider Beetle

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Dark Meal Worm

Cadello

Little Black Ant

Rust-Red Flour Beetle

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Scorpion

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Clover Mite

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Pyrenone* kills 'em all

Saboteurs like these are continually at work—devouring, spoiling and contaminating food and annoying workers—wherever food products are stored, processed or handled. But fast, effective, economical control of these and a wide variety of other insects is possible now with Pyrenone* insecticides.

Versatile Pyrenone is being used as a base for oil-type, emulsion, or wettable-powder sprays . . . aerosols . . . and many specialty insecticides. They're doing an important job in the present national emergency protecting food and food products against insect damage.

Make sure the sprays and dusts you use—both residual and space sprays — are based on Pyrenone. Pyrenone presents no hazards to your employees or products.

*Pyrenone is a registered trade mark of U. S. Industrial Chemicals Co. Division of National Distillers Products Corporation, 60 East 42nd Street, New York 17, N. Y. Branches in principal cities. In Canada: Natural Products Corporation, 738 Marin Avenue, Montreal.

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If you make a product for super-market consumption, an Isco chemical may improve it. Or if you're in the plastics or paper field, if you manufacture textiles or linoleums, insecticides or paints, rubber or leather, an Isco Chemical can help you.

For the best in chemicals, gums and waxes — call on Isco — suppliers since 1816.

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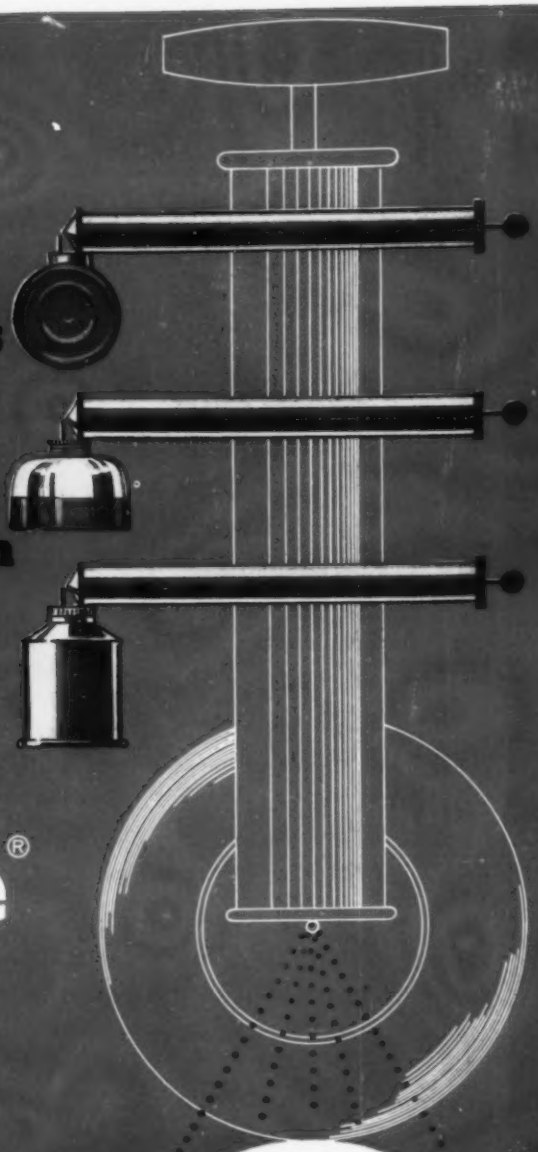

... for example, three gallons of this terpene thiocyanoacetate in 97 gallons of base oil provide a spray that grades AA by the official Peet-Grady method. Even 1% Thanite gives knockdown punch to a 5% DDT residual spray. Write for technical details and prices.

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Membership in CSMA by your firm means association with the leaders in the field of disinfectants, sanitizers, insecticides, deodorants, floor waxes and polishes, soap and detergent specialties, and other chemical specialties,—an opportunity for valuable contacts and discussion of common problems. For over 37 years, these leaders, large and small, have been active in CSMA affairs.

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Sil-Lox dries in a matter of minutes to an exceptionally lustrous finish. It's self-polishing and water resistant. It's *siliconized*—fortified with LUDOX* colloidal silica, which is harder than wax itself.

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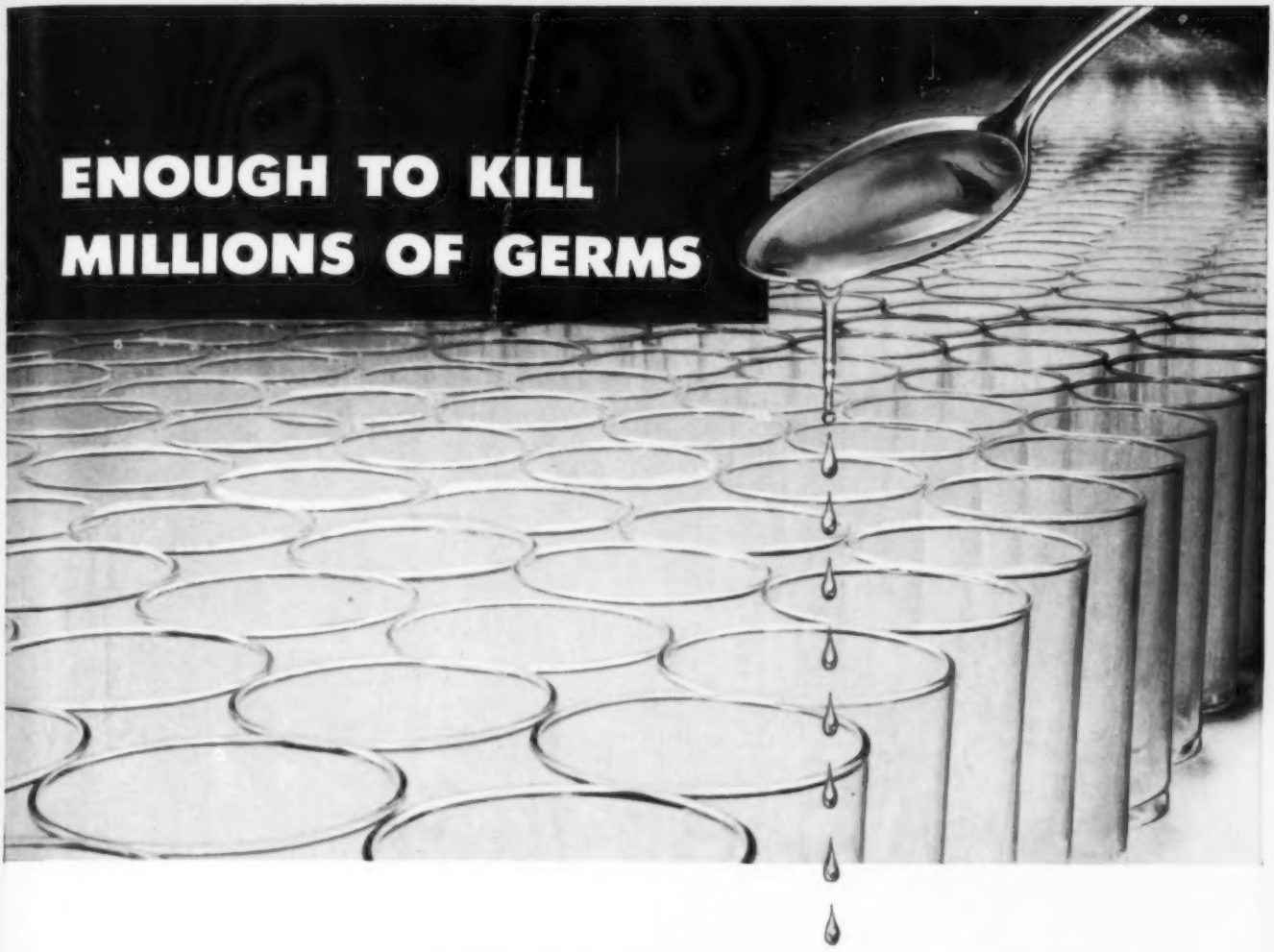

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HYAMINE 2389, a quaternary ammonium bactericide, is *economical* because of its low cost and germicidal potency at high dilution. Its germ killing power under adverse inhibiting conditions is outstanding.

HYAMINE 2389 in your liquid or powder sanitizers will insure repeat orders from restaurants, hospitals, janitor services, barber and beauty shops, laundries, home owners, etc. Take advantage of the *non-irritating* and *odorless* qualities of HYAMINE 2389 and please your customers.

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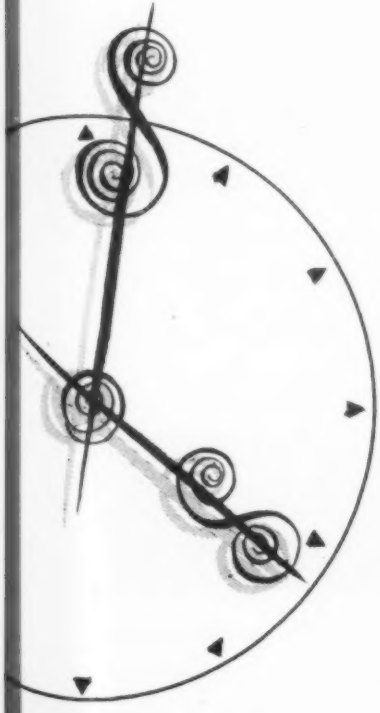

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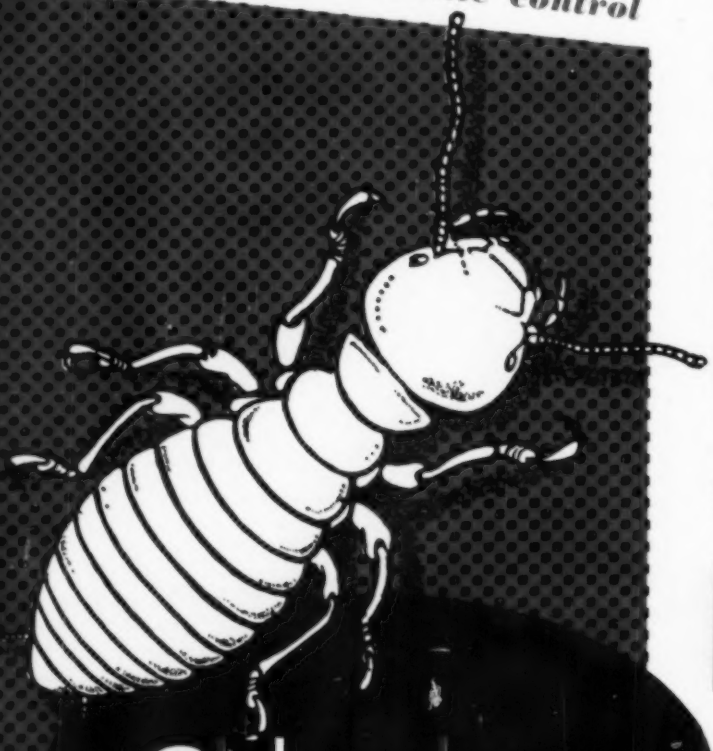

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5. It is easy to handle, light in color, nonstaining in solutions, with faint, nonpersistent odor.

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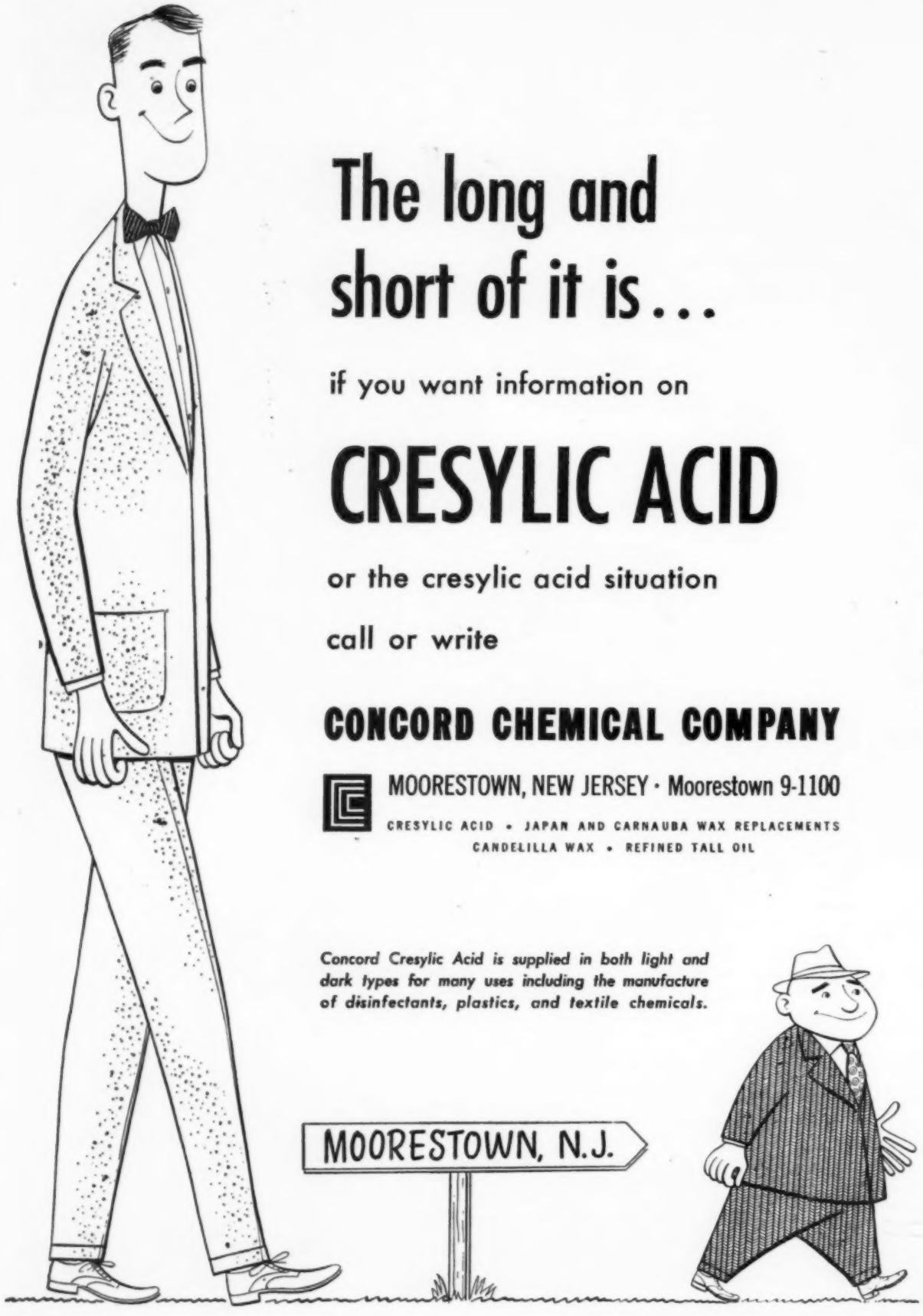

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Laboratory Report #2

Aerosol and Household Spray Report

Geigy Methoxychlor "90" (90% methoxychlor concentrate)—this product continues to meet most exacting market specifications. Our Technical Service Staff and Sales Division report consumers are enthusiastic about our precision process which mixes methoxychlor and deodorized petroleum distillate into a relatively fine, flaky formulation. Another important factor is its solubility in solvents and oils. Packaged in convenient 100 lb. drums, this material is ready to use in manufacturing of household sprays where low toxicity safety factor is desired.

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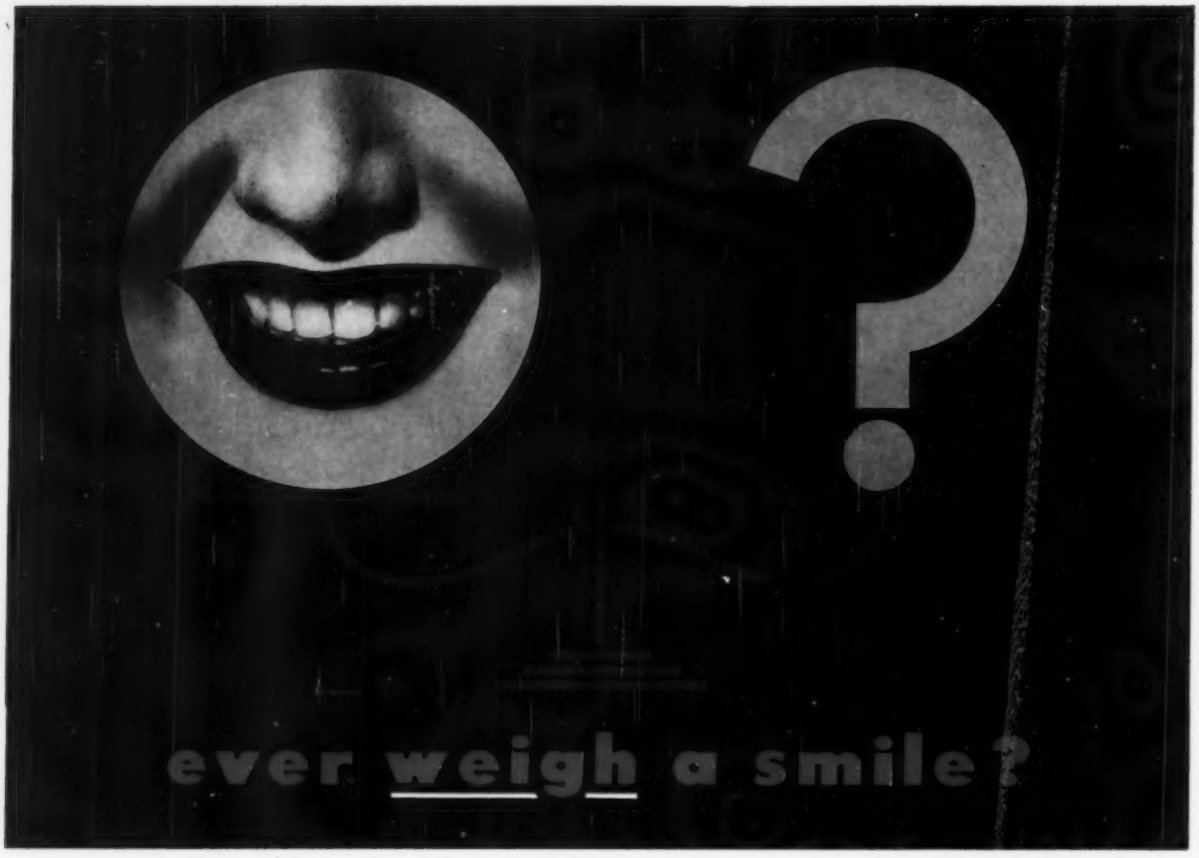

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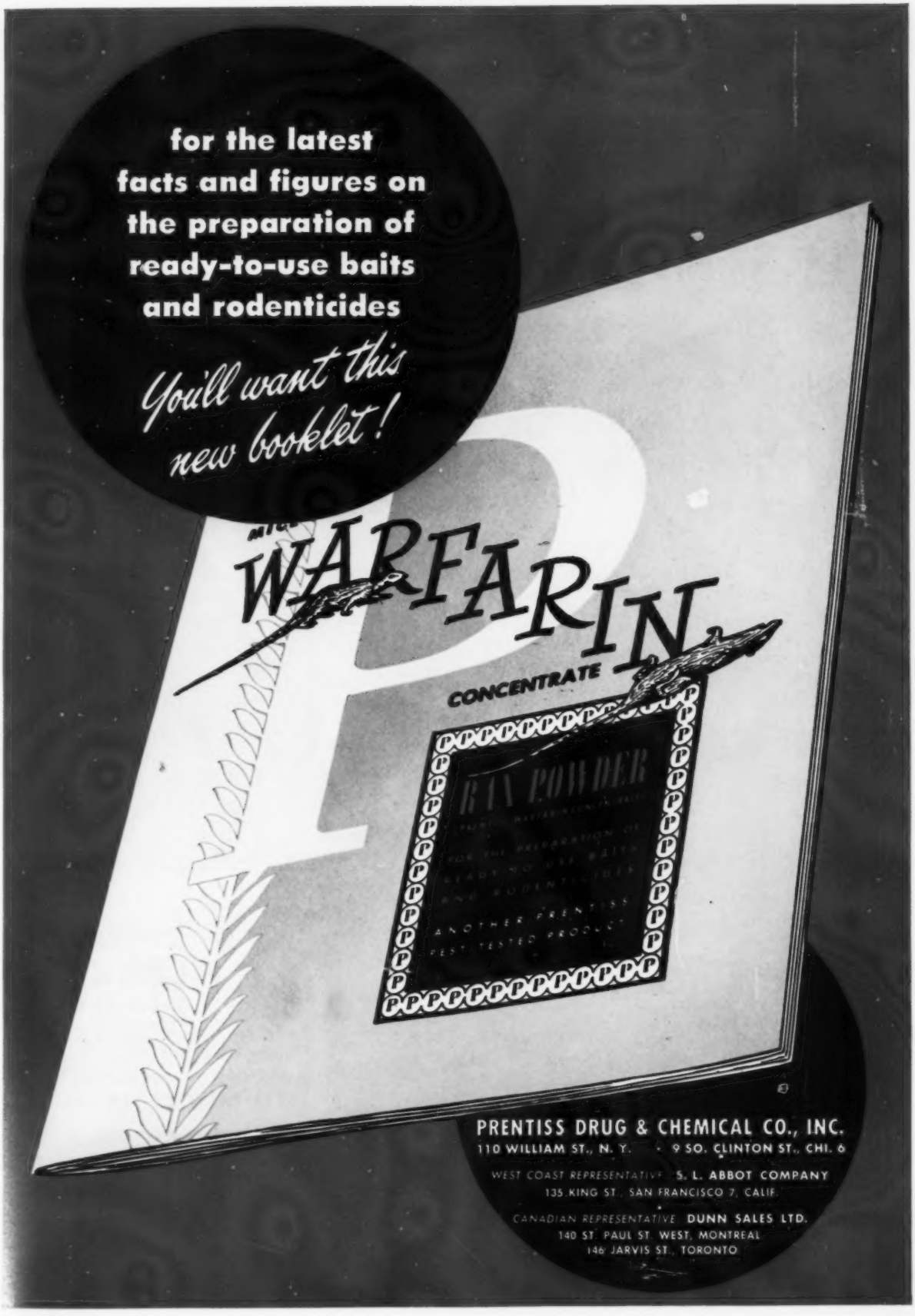
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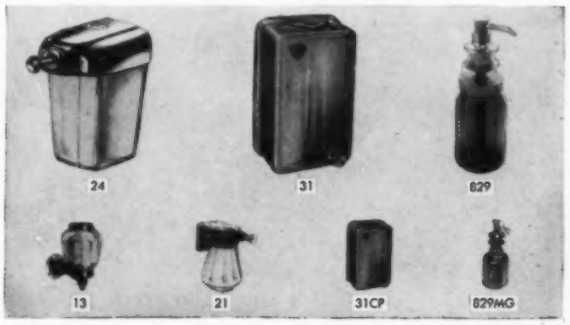

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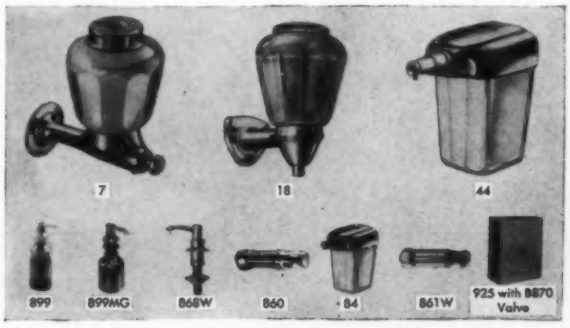
Now being manufactured on basis of materials allocations.
Currently available.
Good 1952 catalog items.



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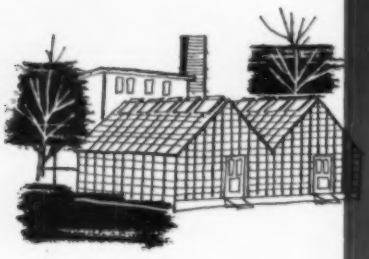

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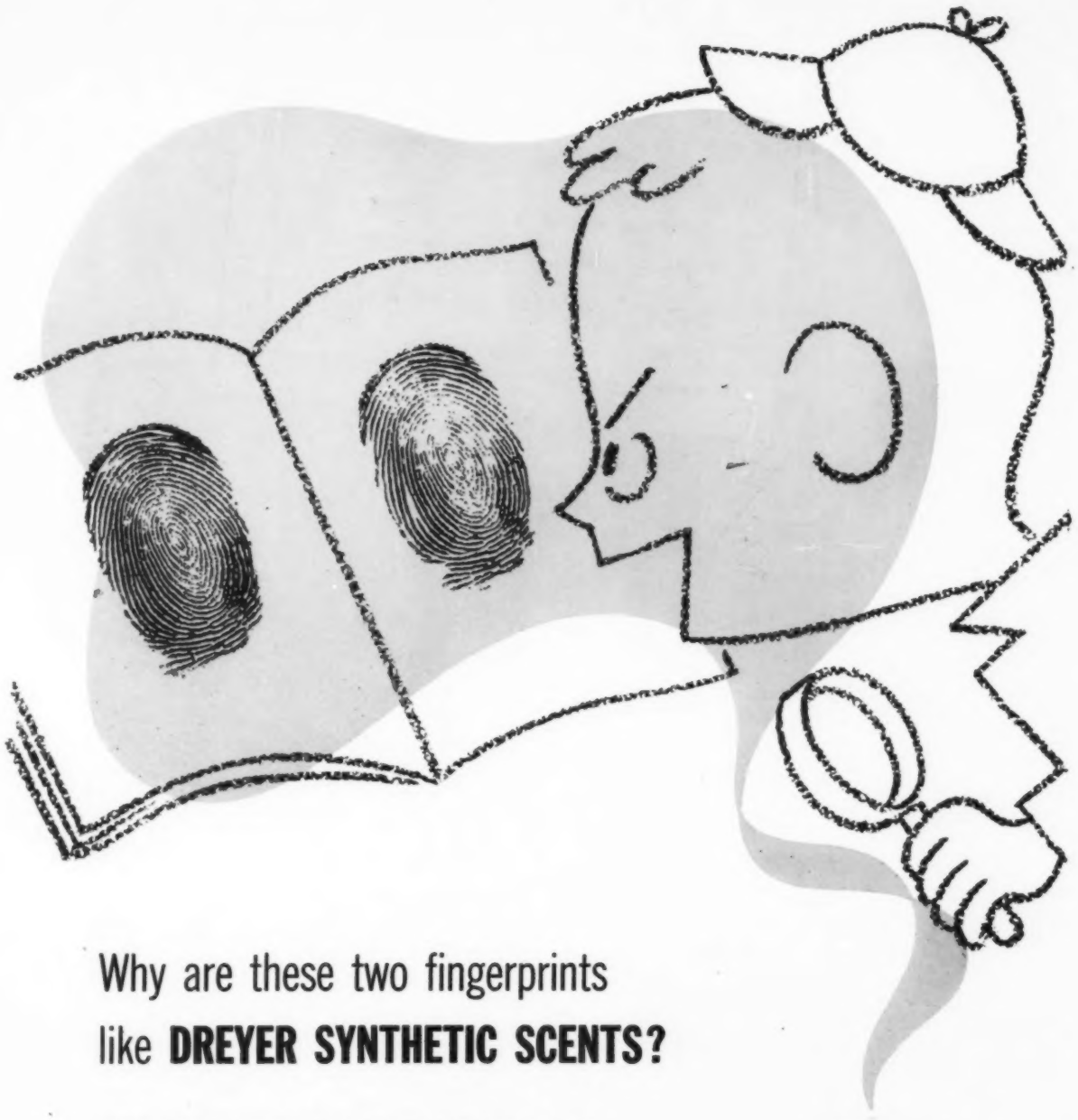

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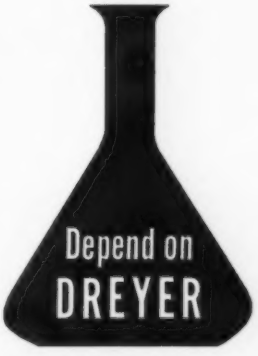

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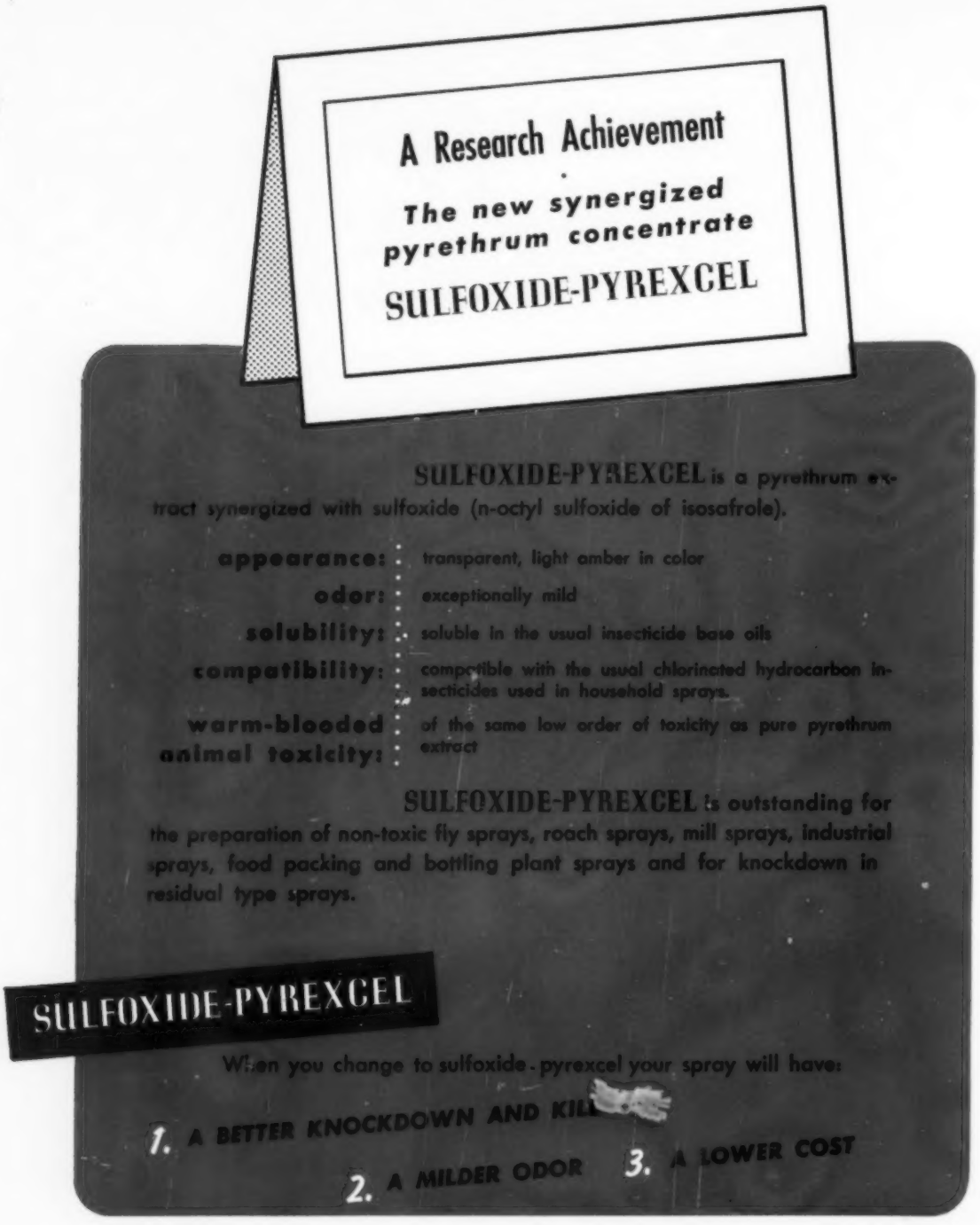
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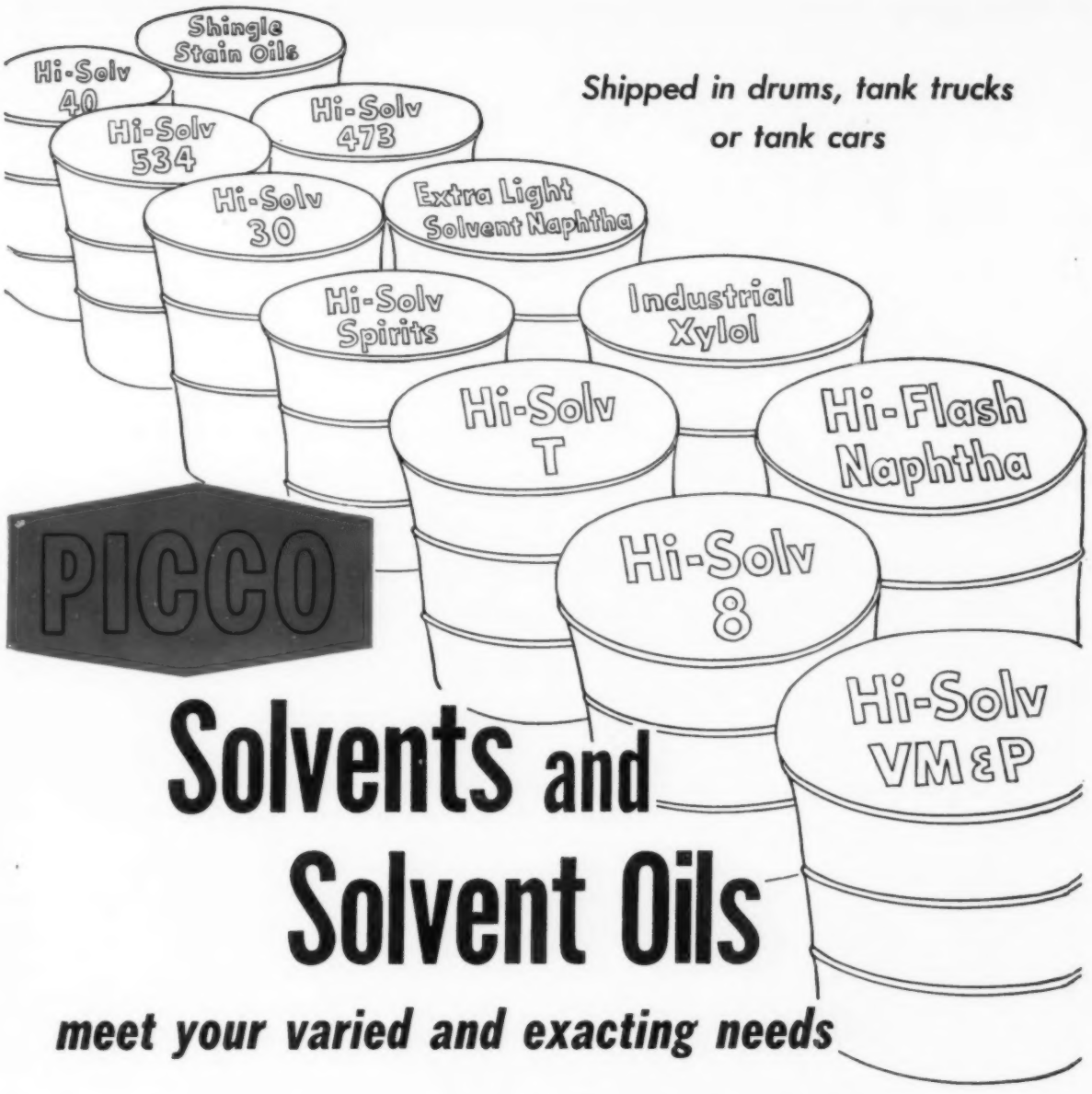

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what does it do?

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First again is Baird & McGuire! *This* time with their new "S-D Cleaner", for "S-D Cleaner" with G-4 *sanitizes* as it *deodorizes* as it *cleans* . . . and *how it cleans!*

G-4 is the new germicidal ingredient recently discovered and perfected which possesses remarkable sanitizing and deodorizing properties.

"S-D Cleaner" with a coefficient 3, sanitizes, deodorizes and cleans in one easy, economical and complete operation! . . . If water won't harm it, "S-D Cleaner" with G-4 will clean it! And, it is non-irritating and non-toxic.

"S-D Cleaner" is compounded for hospitals, schools, public buildings, kennels, bakeries, dairies, canning plants, candy factories, homes, wherever a complete cleaner is needed. And, "S-D Cleaner" is superior for all types of floors!

"S-D Cleaner", unlike many other cleaners, is a combination of three different detergents. One possesses remarkable cleaning properties, the second will produce rich, copious suds, while the third is an unusual wetting agent.

"S-D Cleaner" suds can be mopped up in a jiffy, and leave a soft sheen with *No Slipperiness!*

"G-4" has amazing germicidal activity against both dirt and disease and its qualities as used in "S-D Cleaner" by Baird & McGuire offer you a superlative cleaner . . . not claiming, but *doing* three important jobs at the same time.

Yes, "S-D Cleaner" is a cleaner that does not mask odors, but absorbs and works to eliminate their cause.

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Looking west at front of new Port of Authority Bus Terminal on Eighth Avenue in New York City.

Cleaning New Bus Terminal

By John Regan

ONE hundred and twenty thousand square feet of terrazzo floors; the same number of square feet of marble walls and pillars; 127,000 square feet of acoustical ceilings; 121,000 square feet of glazed tile walls; 65 trash cans; 40 cigarette urns, both water and sand types; 31 ticket booths and offices, 155 coin telephone booths; the area and equipment of four large washrooms, and several employee facilities of the same kind; endless yards of waiting room benches; the all aluminum surfaces of 31 moving stairways, and satin finish aluminum of 129 interior and exterior doors and partitions; 15,286 square feet of window and door glass, exclusive of concessionaires' display windows; cemented areas at 140 bus loading and unloading stations, and their adjoining vehicular rampways; numerous office spaces floored with asphalt tiling; 57 stairway units and five elevators. . . .

No, this is not the prize order of the year for a building materials supply firm, but the surfaces and facilities subject to continuous soiling and faster cleaning, around the clock, at The Port of New York Authority's new bus terminal, the world's largest and undoubtedly most unsullied.

This is the story of the men, materials and equipment — *and the planned system* — used to combat the inevitable residue of a daily traffic of over 125,000 persons, and 5,200 daily incoming and outgoing bus movements.

First a little background on this slightly over one year old terminal, which will yield a clearer picture of why and how it is so fabulously busy, the cleaning materials and equipment requirements and how and when its management efficiencies keep it so shining clean an operation could be performed on its main concourse floor.

The Port of New York Authority built the Terminal at a cost of $24,000,000. It serves both the commuter—60,000 New Jersey residents travel daily to and from New York —and the long distance traveler, coast to coast. The building occupies a square block, measures 800 by 200 feet and has four floors, or levels. The lowest,

Polishing steps, hand rails and sides of moving stairs, of which there are 31 in the newest and world's largest terminal.

Periodical cleaning of ceilings, as well as side-wall and floor surfaces preserves bus terminal beauty and spotlessness.

slightly below the street, serves long haul buses, offering 40 loading positions and 13 unloading platforms. The next, at street level, is the main concourse, where the ticket booths, information center, phones, lockers and every type of concession; every to be taken literally—you can do everything from buying a newspaper, or the week's groceries, to mending a nylon or having a tooth pulled without leaving the building. Third level is called the Suburban Concourse, where there are more concessions, professional offices and the executive offices of the Terminal itself. From the third level, stairways lead to the fourth, where 72 loading and 15 unloading suburban bus stations are situated. Even the roof is useful, being a parking area for 450 automobiles, reached easily from the street by non-stop ramps.

Located adjacent to the Lincoln Tunnel, main underground artery to New Jersey, ramps take man and machine directly into the tunnel entrance without touching the city streets. Consequently as much as one-half hour has been sliced from most commuters' travel time, previously spent in choking city traffic en route to tunnel from scattered individual bus company terminals. And, it has removed from that same traffic for city-wide benefit, 4,800 commuter bus trips per day. Now, 30 bus companies give you a chance to go anywhere you're headed from a single spotless and inviting, traffic free terminal. And you can take a shower while you wait, or bowl a couple of games, or ingest a couple of quick ones in an attractive bar. If you're still unimpressed, the Terminal has created 1,000 new jobs, sells more newspapers per day (14,000) from a single news concession than anywhere else in the world; and both the telephone company and the moving stairway company are prouder and richer, because the escalators (31) and the phone booths (176) represent the largest initial installation by either.

Human traffic, 200,000 per day from Monday through Friday, with 80% of that on Saturday and 68% on Sunday, is made up of 125,000 actual travelers and 75,000 shoppers, lunch eaters, short cut takers, weather avoiders, phone call makers and just plain wall leaners. But from the standpoint of the cleaning problem every one of them leaves his mark, to be washed away, picked up or polished off.

Kinds of Soil

JUST a few words about what kind of dirt confronts the Terminal's sanitary management, before describing the men who do the job and the system, materials and equipment with which they do it.

Unlike industrial refuse or the wastes of a manufacturing process, which can to a degree be anticipated, human carelessness provides a fascinating and unpredictable variety of things to clean up. There are cigarette flippers, newspaper tossers, chewing gum droppers, tobacco juice spitters, crushers of half eaten candy, mud trackers, wallet emptiers, bottle top throwers, whiskey bottle fumblers; people who collect half the snow in the city and wait until they're in the middle of

Swirling ramps leading to and from the bus terminal. Looking east terminal can be seen in upper foreground.

the terminal floor to brush it off, children who eat green apples and gentlemen up to the eyes in Old Dynamite who splash same, suddenly and without warning, at the nearest building attendant.

There are also hundreds of hurrying citizens who can't possibly open a door without kicking it like a football or planting five perfect FBI fingerprints on its glass. And never underestimate the power of a woman, meaning the otherwise lovely lady who just can't drop a quiet loaf of bread, but does a really professional job with a bottle of Russian dressing and dill pickles (large economy size, of course). Finally, man's best friend, the dog, cannot be ignored.

Even so, these are simply the most glamourous clean up jobs; the real work and the real system of its execution is born in the routine dirt from more than 125,000 pairs of shoes plying their way in honest toil for home and family.

LEE C. WEBB

The Men and the Plan

SUPERINTENDENT of the P. A. Bus Terminal and all it inc'udes, is Lee C. Webb, a quiet-spoken man whose background is loaded with bus transportation experience, both in private companies and in government. Supremely conscious of, and proud of the terminal's sanitation program, his manner dissolves the hectic characteristics of what is essentially a hectic job.

Directly in charge of the cleaning program itself, is Cleaning Foreman John Conlon, a vigorous and invigorating young Irishman who seems to have mastered the secret of handling his manpower and his materials so that the maximum is accomplished according to plan, with no waste man-hours or careless or excessive use of materials. Mr. Conlon is directly responsible to Lee Webb as chief of the Terminal, and to Cornelius Patrick Fleming, who is Supervisor of Cleaning Standards, Division of Central Maintenance for all Port of New York Authority facilities, which include the Lincoln and Holland Tunnels, the four major airports, the George Washington Bridge, etc.

Mr. Fleming created the plan and the pattern of the system for cleaning operations in all these facilities, and they made a special and exhaustive time and motion study to anticipate the Bus Terminal problems particularly. Supervisor Fleming is conducting a three-year program to carry out the Port Authority's recognition of sanitation as a basic and separate operational function. He administers a budget of almost $1,000,000 for all facilities, and for its first year of activity, a cleaning budget of approximately $190,000 for the Bus Terminal. Thus, from a cleaning standpoint alone, C. P. Fleming has as his agent at the Terminal, Cleaning Foreman John Conlon, and through him executes the plan and its functions.

In evolving the numbers of men needed, a schedule of daily work, quantities of materials, kinds of equipment, and techniques of cleaning various places and surfaces, Fleming did this: He made a careful study of a reasonable area of each place and type of surface which would require planned sanitation. Through multiplication of the results of experiments with manpower, kind and quantity of materials in these test areas, they reached a close total of manpower to be required and of course a similar estimated total of material consumption. In the same process, they were able to determine and select the mechanical equipment which best executed the designated work. From this base it was relatively simple to formulate wages, materials and equipment costs into a projected

annual dollar budget of $190,000.

To double check his findings, Fleming prepared a remarkably detailed and efficient breakdown of all areas and surfaces to be cleaned, plus a precise schedule of when and how they were to be cleaned. It was given out for sealed bids to a representative group of commercial cleaning contractors. The results of this solidly established the accuracy of the Port Authority's own findings, and the decision was made to self-operate the whole program.

To do the cleaning job at the Terminal itself, "captain-of-the-line" Conlon has, at full roster, which isn't always, 61 men. These men Mr. Conlon routes daily on all jobs in the terminal, and none is usually in continuous service in the same area, or same time or with the same equipment. While the biggest concentrated job of cleaning is done nightly from midnight on, it is the nature of the place to require a continuous job around the clock. Pick up men and sweepers are on constant rotating tours. So are window washers.

Types of Materials Used

A TYPICAL inventory of material and equipment on hand includes the following: 30, 36″ push brooms; 6, 24″ push brooms; 12 pick up lobby pans; 12 pickup lobby brooms; 24 corn brooms; 24 mop heads in 32 and 24 ounce sizes; 18, 12 quart buckets; 24 cellulose sponges; 12, five gallon buckets on wheels; two large trash carts; six dozen burlap trash bags; ample supplies of furniture and metal polishes, waxes and chamois. Mechanical equipment includes three Finnell floor machines, two Wilshire sweepers, and three 60 gallon White mopping tanks.

It should be noted here that the total maintenance and cleaning staff of the terminal is not at work at one time, and that 61 men represent staggered shifts and assignments. Depending on schedules, weather, traffic, etc., there can be as few as 16 or 17 and as many as 20 men on duty in a single night. The fundamental principle of efficiency at the terminal is 24 hour

(*Turn to Page* 153)

Detergent-Sanitizers . . .

How good are they?

By N. E. Lazarus, Ph. D *
Lazarus Laboratories, Inc.

AT THE turn of the century, health and medical authorities recognized the potential hazard to public health of milk and its by-products. Numerous outbreaks of milk-borne epidemics were traceable to a lack of hygiene in milk production, adulteration and insanitary practices. This condition resulted in a multiplicity of sanitary codes and control regulations to insure the safety and wholesomeness of milk and milk by-products. With the advent, on a nation-wide scale, of efficient pasteurization, which effectively destroys pathogenic organisms, the safety of the consumer's health has been achieved, insofar as milk-borne epidemics are concerned.

The problem of insanitary practices, particularly on dairy farms, is still with us, despite years of policing and educational supervision. The essential cause for the lack of progress can be ascribed to the human element. We demanded laboratory sanitation procedures from dairy farm producers whose livelihood is obtained from dirt and who rightfully regard manure as an essential, money-making crop. Few producers have the time, the urge or the ability to use complicated procedures for sanitation in the dairy-barn. They are far more interested in using a simple and easy method, requiring a minimum of labor and time. Hence, there was a pronounced tendency, particularly in the hands of careless or inexperienced producers, to make short-cuts and thus create more harm than good. Theoretically, if the procedures demanded by the regulations in vogue are used correctly, good results are obtainable. The use of an ordinary alkali as a detergent, plus plenty of hot water and the vigorous use of "elbow grease" invariably will get results; but that requires a maximum of time and labor. From a practical standpoint, the objective is to have compliance with a procedure which is acceptable to the producer and will receive his wholehearted co-operation.

Hypochlorite Sanitizers

IN THE inspection of a great many dairy farms, it was not unusual to find milking machines sanitized in hypochlorite solutions showing only traces of chlorine. Where solutions of lye or hypochlorites were kept in earthenware crocks, the solutions were renewed on an average of eight days. Where solution racks were used, there was considerable variation between the chlorine present in the inverted glass jug and in the rubber tubes and teatcups. The average loss was 50 percent and was partially due to oxidation of the rubber.

As for hot water sterilization, the producer often had the impression that a tea kettleful of boiling water was sufficient. Where producers had hot-water heaters some were always ready with an excuse for their failure to function. It was common practice to use detergents indiscriminately and if not handy, to substitute soap. Frequently, hypochlorites were used for both detergency and sanitizing.

With that background, it can be appreciated why inspectors and sanitationists were anxious to find some procedure which would be used without coercion and constant supervision. That brings us logically to the subject of a one-operation procedure for combined detergency and sanitizing, a method viewed with distrust by some laboratory and health officials. However, it is not a new or novel idea. Back in 1928, a manufacturer of a hypochlorite powder advertised in a national publication that X powder is "more than a washing compound—more than a sterilizer—it's both. It destroys bacteria as it cleans and removers foul odors—instantly with one operation and with cold water. One warm or cold water wash—rinse and you're through." Experience led to its discard because of the rapidity with which chlorine attacked organic matter as well as bacteria.

An aqueous solution of potassium or sodium hydroxide, known commercially as lye, was used extensively for years as a combined detergent-sanitizer on dairy farms. Even at the present time, a 2% solution of sodium hydroxide, known as caustic soda, is universally used for washing and sterilizing milk-bottles in dairy plants, in one operation.

During World War II, the armed forces were confronted with the critical demands of global warfare for soap substitutes and replacements for the old Dakin germicidal solution for field hospital use. These two requirements were met, in part, by the development of non-ionic detergents and quaternary ammonium compounds.

In 1939, at a meeting of New York State Sanitarians, the suggestion was made that the possibilities of a combined detergent-sanitizer of non-ionics and quaternaries be investigated for use in the dairy field. A great deal of interest was aroused and work was

* Before 38th annual meeting C.S.M.A., Washington, D. C., Dec. 3, 1951.

started on the problems that had to be solved. These involved such questions as:

1. Could cationics and non-ionics be combined in one product to give results comparable with or better than materials used hitherto such as alkalies and acids, germicides, steam and water?
2. Would such a combination improve present procedures, eliminate health hazards, lessen microbial contamination and do a satisfactory job in the hands of unskilled labor?
3. Would such a compound be affected by hard water, organic matter, temperature, neutralizing agents, pH or even the incompetence of the user?
4. Would the cost to the user be prohibitive or would it save labor and time, and be easy to use?

Research Needed

THE answers to these problems and many others required painstaking research in the laboratory and tests in the field. The production of liquid and powdered cleaner-sanitizers was not a simple matter of mixing quaternaries and non-ionics with carbonates, phosphates, silicates and other alkalies. Compatibilities, optimum pH ranges, the effect of ferric iron and germicidal inactivation from other factors had to be ascertained and established.

The research program was divided into studies of quaternaries, non-ionics and cleaner-sanitizer mixtures. These studies were made to determine their practical application for use in dairy and food fields and included the following:

1. Toxicity and skin-sensitivity.
2. Germicidal efficiency of action and kill, using standard test organisms.
3. Rate of kill and total kill of vegetative cells and spores.
4. Germicidal action on common types of gram-negative and gram-positive organisms prevalent in milk.
5. The significance of hydrogen-ion and pH ranges.
6. Effects of temperature, water hardness and other retarding and interfering substances such as protein, fat, carbohydrate, iron and anionics, as inactivating agents on germicidal action.
7. Relationship of film deposits, residual soil, foaming and agitation to soil removal and penetration properties.
8. Storage life based on physical, chemical and bacterial factors.

This work was done over a period of two years and was the pioneering research for the development of a cleaner-sanitizer with a quaternary non-ionic base. This was followed by a year's practical field testing on several hundred dairy farms. It is not surprising to find that many variables had to be determined, if we accept the premise that bacteria are living entities with similar chemical changes and metabolism involved in the processes of growth and repair as exemplified in other forms of life.

For instance, the lethal action against bacteria varied to a considerable degree with the quaternaries selected for study. Since quaternaries differ widely in their chemical structure, only a dozen were studied which showed the best potential germicidal action in time, penetration and specific kill on certain types of organisms. As a result of these studies, it was found that a blending of quaternaries resulted in superior kill action on gram-negative and gram-positive organisms, as compared with individual quaternaries. This was one of the first observations made in the process of formulating a detergent-sanitizer formulation.

Toxicity and skin-irritation studies, made by a nationally known toxicologist, showed that in proper dilution, the quaternaries and non-ionics were neither a primary irritant nor a sensitizer and the acute toxicity values met food and drug requirements.

As pointed out recently by Dr. George R. Weber of U.S.P.H., from the standpoint of resistance to bactericides, bacteria fall into two categories:

"1. Spore forming organisms in the spore state.
2. Non-spore forming and spore forming organisms in the vegetative stage."

Studies proved that *aerobacter aerogenes*, which is the predominant coliform organism found in practically every raw milk source, was killed at a more rapid rate than *escherichia coli*. A gram-negative, water borne organism, *pseudamonas fluorescens* was the most resistant of the vegetative types. Different quaternaries showed varied germicidal action against this organism. The period of exposure to kill a suspension of *E. coli* completely varied from one to seven minutes. The percentage survival with a five minute exposure showed that practical sterility was obtained.

Concentrations of at least five times greater magnitude were required to kill spores than vegetative cells. The rate of kill rather than the specific point of total kill by the quaternaries is an important criterion of germicidal action. A large percentage of the cell population in any given culture is sensitive to germicides, with a few remaining cells showing increased resistance. These few cells may mask the effectiveness of the quaternary when complete killing becomes the basis for testing efficiency. Using the criterion of rate of kill, over 90 percent of vegetative bacterial cells were destroyed on short exposures in concentrations of 1:150,000 or less. To kill more than 50 percent of spore suspensions, concentrations of 1:500 to 1:1500 are necessary.

H-Ion Concentration

THE effect of H-ion concentration on the germicidal action of the quaternaries investigated showed that some were effective in alkaline range, some in acid range and some in both. The pH ranged from 2.0 to 9.0 and the germicidal action increased with higher temperatures. Some were materially affected at low temperatures. The effective range at which quaternaries reached maximum efficiency directly indicated compounding possibilities with alkaline detergents. Compatibility with tri-sodium phosphate gave optimum results in germicidal action at pH 9.0 to 9.6. By adding TSP, the germicidal activity of one quaternary was increased from a dilution of 1:3000 to 1:9000 necessary to kill *E. coli* completely. Similar results were

obtained with sodium metasilicate.

The effect of organic matter on germicidal action of the quaternaries was determined with the use of different types of organic matter. Normal horse blood serum and skim milk were used as a source of protein; cottonseed oil as a source of fat, and soluble starch for carbohydrate. Several of the salts indicated germicidal properties in the presence of large amounts (up to 10 percent) of organic matter.

Effect of Hard Water

THE most serious retarding factor of germicidal action was caused by so-called hard waters. This condition may be caused by hydrolysis and decomposition of the quaternary by the interaction with water in the presence of acids or alkalies, such as calcium and magnesium and also ferric iron. In this connection, the U. S. Geodetic Bureau water survey of 1947, conducted in 48 states, showed that of the total water hardness 40 percent was under 50 ppm; 21½ percent was between 50 and 100 ppm; 15 percent was between 100 and 150 ppm; and 90 percent was between 150 and 200 ppm, making a total of 85½ percent under 200 ppm.

In the studies of nonionics, several interesting facts were found. Since the detergent properties of quaternaries are too weak to be used alone, non-ionics were combined with quaternaries. It was noted that not only did the non-ionic bring about physical compatibility but also retained the germicidal activity of the quaternary when the solutions were in complete compatibility. The physical compatibility of non-ionics was determined by noting cloud-points and precipitates, with further observation at weekly periods.

Although theoretically anionic and cationic compounds are non-compatible, in a practical sense this is not 100 percent true. Certain types of anionics in small percentages were found to have increased the germicidal action of the quaternaries.

The third phase of laboratory studies was the formulation of cleaner-sanitizers. In many industrial operations, cleaning and sanitizing are closely associated operations, but have remained separate due to lack of compounds which might serve the dual purpose of sanitizing while cleaning.

The addition of non-ionics to quaternaries, while satisfactory from the standpoint of compatibility, however, was insufficient, since non-ionics are not particularly effective static cleaners. A prolonged time interval between soiling and washing procedures reduced the non-ionic cleaning effectiveness. The next step was fortification with compatible alkalies and sequestering agents to control ferric iron and other factors of water hardness. This was accomplished much more easily in liquid cleaner-sanitizers than in dry powder mixtures. The first attempts at formulation of powdered mixtures resulted in compounds that lacked sufficient sanitizing properties due, primarily, to overloading with alkalies and fillers which probably neutralized the quaternaries present. The powders were also slow to solubilize, which resulted in cloudy use-solutions.

The final phase of the research was to evaluate cleaner-sanitizers in all seasons of the year on a number of dairy farms having different types of water, and dealing with average farm help and personnel. This work was done under the guidance of milk sanitarians and other regulatory agencies.

Directions for farmers were prepared carefully and submitted to producers, health officials in city, state and national dairy bureas. Every effort was made to achieve ease of use, simplicity of language and accurate observance of health regulations. The length of time of contact was a very important factor and differed materially with that of laboratory procedure.

Raised Milk Quality

CLEANER-sanitizers proved immediately to be of great value in raising the quality of the raw milk supply, keeping it at a high level and, best of all, getting real co-operation from the producers. In all cases the thermoduric count was dramatically reduced, an important factor to the city or country pasteurizing plant, since the pasteurization process will not affect or kill these heat-resistant organisms. Health departments, whose regulations allow a certain maximum bacterial count per ml, were particularly pleased.

The value of cleaner-sanitizers in a one-operation procedure has been recognized and these products have found a place in sanitation in spite of the furore that has been aroused in some quarters. The most important and outstanding features of the development of detergent-sanitizers are their widespread and enthusiastic adoption by the producers on the farm, and the production of a uniformly high degree of quality milk.

There is a definite need for one-operation cleaning and sanitizing despite some short-comings which will be overcome in time. These seem to center on a residual chemical field test along the lines of the ortho-toluidine test for residual chlorine. In actuality, few field men, health inspectors or producers use the test. They depend, in a practical way, upon the bacterial count of the milk at the laboratory, and the use directions of the manufacturer. Cleaner-sanitizers can be tested easily in the laboratory as there are several bacterial tests which measure the effi-

(*Turn to Page* 163)

Value of cleaner sanitizers in a one operation procedure has been recognized and these products have found a place in sanitation . . . their widespread and enthusiastic adoption by milk producers an outstanding feature of development.

Ratios of Piperonyl Butoxide and Pyrethrins for

German Cockroach Control

THE growing emphasis on the use of chemicals with low toxicological hazards around homes and food establishments has brought about a greater demand for pyrethrum insecticides. However, the supply of natural pyrethrins is not sufficient to meet present needs. These factors have led to extensive use of combinations of piperonyl butoxide (10) and pyrethrins, known as "Pyrenone"*, to control cockroaches. Both these materials have a wide margin of safety to warm-blooded animals (4), (7), (8), (9). Actual control experience with these materials has been described by Donohoe (3). In previous work reported by Dove in 1947 (4), it was shown that for greatest efficiency against house flies these ingredients must be combined in rather definite ratios. In view of this fact, it seemed advisable to conduct a similar study on the German cockroach, *Blattela germanica* (L.).

Tests were made using the C.S.M.A. Tentative Test Method for Liquid Roach Sprays (1), which is a composite of the Bottimer (2) and Hazard (5), (6) methods with modifications resulting from cooperative testing by various C.S.M.A. laboratories. By this method five replicates of 20 adult male German cockroaches were sprayed in screen-bottomed tin cups in a small chamber with a De-Vilbiss Peet-Grady type atomizer, using a dosage of 0.5 ml. per replicate. The roaches were transferred to small glass holding jars, and mortality was observed after 24 and 48 hours. The method was modified in two instances for these tests. Filter paper was placed in the bottom of the holding jars, and water was provided the roaches during the holding period. It was felt that the water was necessary, because at that time without it a definite increase in mortality had been noted between the 24 and 48 hour observations.

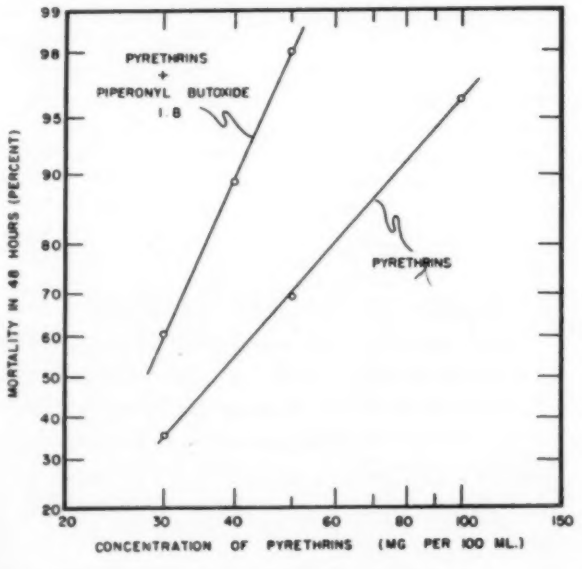
Comparisons were made of several ratios of pyrethrins plus piperonyl butoxide with pyrethrins alone. Four ratios were formulated in a deodorized base oil; namely, the 1:10, 1:8, 1:5, and 1:2.5 ratios of pyrethrins to piperonyl butoxide. In addition, the ratio of 1:10 was formulated as an emulsion to afford a comparison of water-based versus oil-based sprays. Three concentrations of each ratio were compared directly with three concentrations of pyrethrins, which were O.T.I. and O.T.I. diluted. It was possible to compare only one ratio with pyrethrins alone on any single day. The results for each ratio represent two days' testing, and for each concentration tested there was a total of 200 cockroaches.

The results were plotted graphically on log-probability paper. As an example, Figure 1 shows the estimated straight line for the 1:8 ratio with its corresponding pyrethrins line. In this manner the LD 80 for each ratio, as well as for the corresponding pyrethrins, was obtained.

Table 1 gives the results of this first series of tests and the LD 80 (in mg. per 100 ml.) for each of the ratios and the pyrethrins alone. The relative effectiveness of the combination of pyrethrins and piperonyl butoxide (based on the pyrethrins) in relation to pyrethrins alone at the LD 80 level was calculated for each ratio. These figures make possible a direct comparison of the ratios, and they show that the 1:10, 1:8, and 1:5 oil base and the 1:10 emulsion combinations were approximately equal in effectiveness and about one and one-half times as effective as pyrethrins alone. The ratio of 1:2.5 was only slightly more effective than pyrethrins alone.

To complete this study of

FIGURE 1 - PYRETHRINS PLUS PIPERONYL BUTOXIDE AT A 1:8 RATIO AND PYRETHRINS ALONE



* Registered trade-mark of National Distillers Products Corporation.

† Before 38th annual meeting Chemical Specialties Manufacturers Association, Washington, D. C., Dec. 4.

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ratios, a second series of tests was made in which the concentration of pyrethrins was held constant. The results in Table 2 represent four days' testing, and for each concentration tested there was a total of 400 cockroaches. These results confirm those of the previous tests and show that the pyrethrum supply may be extended, without sacrificing effectiveness against cockroaches, by using combinations of pyrethrins and piperonyl butoxide at ratios of 1:10, 1:8, and 1:5. It must be emphasized that these are mortality results only; no observations of knockdown were made in this study.

Results of these tests comparing ratios of pyrethrins and piperonyl butoxide with pyrethrins alone against German cockroaches may be summarized as follows:

1. The ratios of 1:10, 1:8, and 1:5 as oil-based sprays and 1:10 in emulsion form were approximately equal in effectiveness, based on mortality at 48 hours, and about one and one-half times as effective as pyrethrins alone.

2. The ratio of 1:2.5 was only slightly more effective in mortality than pyrethrins alone.

3. The emulsion and oil-based combinations at the ratio of 1:10 were equally effective.

TABLE I

Direct Spray Tests of Ratios of Pyrethrins and Piperonyl Butoxide on Adult Male German Cockroaches.

Ratio	Material (mg. per 100 ml.) Pyrethrins	Piperonyl Butoxide	Average Mortality in 48 Hr. (Percent)	LD 80 (mg. per 100 ml.)	Relative Effectiveness at LD80*
1:10	30	300	80		
1:10	40	400	96		
1:10	50	500	95	30+300	1.53
....	30	...	64		
....	50	...	80		
....	100	...	97	46	1.0
1:8	30	240	60		
1:8	40	320	89		
1:8	50	400	98	35+280	1.71
....	30	...	35		
....	50	...	69		
....	100	...	96	60	1.0
1:5	30	150	58		
1:5	40	200	76		
1:5	50	250	93	40+200	1.65
....	20	...	34		
....	40	...	55		
....	100	...	92	66	1.0
1:2.5	30	75	66		
1:2.5	40	100	84		
1:2.5	50	125	92	37+ 92.5	1.02
....	30	...	68		
....	50	...	89		
....	100	...	99	38	1.0
1:10**	30	300	50		
1:10**	40	400	83		
1:10**	50	500	94	39+390	1.46
....	30	...	45		
....	50	...	70		
....	100	...	96	57	1.0

* Based on pyrethrins content of the combinations, compared with pyrethrins alone.

** Emulsion.

Literature Cited

(1) Anonymous, Testing of Roach Sprays. *Soap and Sanitary Chemicals* 22, 145, 147, 148E (1946).

(2) Bottimer, L. J., Roach Rearing and Testing. *Soap and Sanitary Chemicals* 21, No. 12, 151, 153, 155, 157, 159 (1945).

(3) Donohoe, Eileen L., Pyrenones in Roach Control Practice. *Pests and Their Control* 16, No. 7, 9, 10, 11, 48 (1948).

(4) Dove, W. E., Piperonyl Butoxide a New and Safe Insecticide for the Household and Field. *Amer. Jour. Trop. Med.* 27, No. 3 (1947).

(5) Hazard, F. O., Liquid and Powder Methods for Roach Testing. *Soap and Sanitary Chemicals* 21, No. 6, 126, 127 (1943).

(6) Hazard, F. O., Modifications of the Liquid Roach Method. *Soap and Sanitary Chemicals* 21, No. 12, 159, 167 (1945).

(7) Lehman, A. J., The Toxicology of Newer Agricultural Chemicals. Bul. of the Assoc. of Food and Drug Officials; 12, No. 3, 82, 89 (1948).

(8) Sarles, M. P., Dove, W. E., Moore, D. H., Acute Toxicity and Irritation Tests on Animals with the new Insecticide, Piperonyl Butoxide. *Amer. Jour. of Trop. Med.* 29, No. 1, 151, 166 (1949).

(9) Sarles, M. P., VandeGrift, W. B., The Toxicology of Piperonyl Butoxide in Warm-Blooded Animals. In Process of Publication (*Amer. Jour. of Trop. Med*).

(10) Wachs, Herman, Synergistic Insecticides. *Science*, 105, 2733 (1947).

TABLE II

Direct Spray Tests of Ratios of Pyrethrins and Piperonyl Butoxide on Adult Male German Cockroaches.

Ratio	Material (mg. per 100 ml.) Pyrethrins	Piperonyl Butoxide	Average Mortality in 48 Hr. (Percent)
1:10	35	350	78
1:8	35	280	80
1:5	35	175	70
1:2.5	35	87.5	54
....	35	...	46
....	100	...	88

Textiles, bristles, feathers, liquids, etc., may be sterilized by irradiating them with high speed electrons of a velocity greater than 1,000,000 v. for very brief periods, each less than .0001 seconds. British Patent 656,776.

Disinfectant Test Methods...

The Effect of Varying Antidotes and Test Methods on Germicidal Efficiency of Certain Types of Cresylics and Quaternaries.

By A. R. Cade

A report of the C.S.M.A. Disinfectant Testing Committee

DURING the year 1949 two active groups of six members each of our original committee of twelve carried out an extensive research project in a cooperative manner, the basic purpose of which was to compare the relative efficiencies of what were then considered the three most likely practical disinfectant test procedures. These three included the A.O.A.C. test, the Stuart Carrier or Ring test, and the Klarmann-Wright Semi-micro method. In the planning for, as well as in the carrying out of the work for this investigation, it was recognized that a distinction be made between the process of disinfection and that of sanitization. It was also further recognized that test procedures used for determining the efficacy of a product for either use may, of necessity, differ especially as to the end-point sought.

The aim of our work basically was to improve, especially as to ease of manipulation, as well as to the accuracy of the data obtained, methods for determining the true germicidal powers of products to be used for disinfectant purposes as opposed to sanitizing uses. The primary aim in these investigations was to find the 100% kill end-point. In this connection we have made no attempt to evaluate the relative merits, for example, of the 100% kill vs. the 99.99% kill, etc., as showing true or practical germicidal potencies. Also, we fully recognize the place for and reliable use of a less than 100% kill when sanitizing results are involved, as opposed to disinfection.

Our secondary objective was to determine, if possible, which of the three methods was to be preferred. the answer to be based especially upon the degree of accuracy and ease of manipulation commensurate with reliability.

With these facts and objectives in mind, work plans were organized for the two separate work periods (Jan. to June; and July to December), and the work carried out by the six cooperating members for each group. Those who participated in this work, arranged in alphabetical order, include:

1.) Dr. A. R. Cade, Givaudan-Delawanna, Inc., Delawanna, N. J., Jan. to Dec. group;
2.) Dr. George Goetchius, Rohm and Haas Co., Philadelphia, July to Dec.;
3.) Dr. A. F. Guiteras and Miss Rebecca Shapiro, formerly of Foster D. Snell, Inc., now Hudson Laboratories, Inc., New York, Jan. to Dec.;
4.) Dr. E. G. Klarmann and Mrs. E. S. Wright, Lehn & Fink Products Corp., Bloomfield, N. J., Jan. to Dec.;
5.) Dr. H. E. Lind, Sias Laboratories, Brookline, Mass., Jan. to June;
6.) Mr. Burton G. Philbrick, Skinner & Sherman Co., Boston, Jan. to Dec.;
7.) Mr. R. S. Schumard, Monsanto Chemical Co., St. Louis, Jan. to June;
8.) Dr. L. S. Stuart, U. S. Department of Agriculture, Washington, D. C., Jan. to June;
9.) Dr. Paul Wolf, Dow Chemical Co., Midland, Mich., July to Dec.

In each of the two series of tests, four sub-divisions or associated problems were investigated. These included:

Series No. 1 (*Jan.-June*): Comparison of the A.O.A.C. Germicidal Test with the Semi-micro and the Carrier Methods.
- Part A. The A.O.A.C. Test, and the effect of thioglycollate broth used in the subculture media.
- Part B. The Carrier or Ring Method.
- Part C. The Semi-micro Method.
- Part D. The effect of using a normal saline suspension of culture in place of the standard 24-hour nutrient broth culture.

Series No. 2. (July to December): Comparison of Efficiencies of Various Antidotes Used as Neutralizers in Subculture Test Media.
- Part A. Comparing the semi-micro with the A.O.A.C. procedures as they apply to a cresylic type of disinfectant.
- Part B. Comparison of "Tamol", "Bacto-oxgall", and "Letheen" as antidotes for the subculture media, using Rohm and Haas Company's Compond 1622 as the quaternary to be tested. *M. aureus* as test organism. Semi-micro procedure.
- Part C. Same as "B", using *S. typhosa* as test organism.
- Part D. Same as "B", but using W. S. Merrell's cetyl tri-methyl ammonium bromide (C.T.A.B.) as the quaternary.

A somewhat detailed outline of the work procedure and a combined summary of the results of the work carried out in each series will be presented below. Interpretations of these data, with conclusions drawn therefrom, covering the work taken as a whole, will then be presented at the end of the two sets of data summaries.

SERIES 1

Part A.

Purpose: The main objective of this test was to determine if the presence of N.I.H. thioglycollate broth in the subcultures, as required for testing mercury germicides and therefore necessary when testing "unknowns", had any effect (good or bad) on the test results as obtained when using the A.O.A.C. procedure for cresylic type disinfectants.

Procedure: The standard A.O.A.C. procedure was used. *S. typhosa* and *M. aureus* were the test organisms. The medication was a standard cresylic type disinfectant with a phenol-coefficient supposedly of around 5.0. 20°C. and 10 minutes contact time were employed. One set contained N.I.H. thioglycollate broth as the sub-

TABLES OF DATA

Series 1: Comparison A.O.A.C. with Semi-Micro and Ring Methods

PART A

Table 1—Study Effect Using NIH Broth as Subculture Media in A.O.A.C. Test

		Lab. 1				*Lab. 2*				*Lab. 3*				*Lab. 4*				*Lab. 5*				*Lab. 6*			
		A.O.A.C.		*NIH*		*A.O.A.C.*		*NIH*		*A.O.A.C.*		*NIH*		*A.O.A.C.*		*NIH*		*A.O.A.C.*		*NIH*		*A.O.A.C.*		*NIH*	
		−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+
Cresylic	1–140	11	1	10	2	6	6	5	7	11	1	12	0	6	0	6	0	12	0	12	0	2	0	2	0
"P.C. = 5"	1–160	3	9	4	8	2	10	0	12	8	4	8	4	6	0	6	0	12	0	12	0	2	0	1	1
M. aureus	1–180	0	12	0	12	0	12	0	12	1	11	1	11	6	0	6	0	12	0	10	0	1	1	1	1
	1–200	0	12	0	12	0	12	0	12	0	12	0	12	2	4	1	5	8	4	8	4	2	0	2	0
	1–250	0	12	0	12	0	12	0	12	0	12	0	12	3	3	1	5	0	12	0	12	2	0	2	0
S. typhosa	1–400	12	0	9	3	5	7	4	8	4	8	4	8	6	0	6	0	10	2	10	2	2	0	1	1
	1–450	7	5	0	12	2	10	2	10	3	9	4	8	6	0	6	0	9	3	2	10	1	1	1	1
	1–500	0	12	0	12	0	12	0	12	0	12	0	12	6	0	6	0	9	3	0	12	1	1	1	1
	1–550	0	12	0	12	0	12	0	12	0	12	0	12	6	0	3	3	1	11	0	12	2	0	1	1
	1–600	0	12	0	12	0	12	0	12	0	12	0	12	6	0	4	2	0	12	0	12	2	0	1	1
Phenol	1–60	+	−	−	..	+	−	−	..	+	−	−	..	+	−	−	..	±	−	−	..	+	−	−	..
M. aureus	1–70	+	+	+	..	+	+	+	..	+	+	+	..	+	+	−	..	..	..	..	..	+	−	−	..
S. typhosa	1–80	+	+	−	..	+	−	−	..	+	−	−	..	+	−	−	..	..	..	..	..	+	−	−	..
	1–90	+	+	+	..	+	+	−	..	+	+	±	..	+	+	−	..	+	−	−	..	+	+	−	..

PART B

Table 2—Carrier or Ring Test, Using Tamol and Letheen as Antidotes

		Tamol		*Letheen*		*Tamol*		*Letheen*		*Tamol*		*Letheen*		*Tamol*		*Letheen*		*Tamol*		*Letheen*		*Tamol*		*Letheen*	
M. aureus		−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+
Cresylic	1–125	8	9	9	9	17	1	18	0	13	5	..	..	3	6	0	9	11	7	7	11	5	1	5	1
	1–150	8	10	12	6	13	5	13	5	13	5	..	..	3	6	0	9	2	16	0	18	6	0	6	0
	1–175	5	13	4	14	9	9	10	8	8	10	..	..	1	8	0	9	1	17	2	16	6	0	6	0
Quaternary	1–3000	5	13	6	12	10	8	10	8	13	5	..	..	5	4	3	6	10	8	8	10	6	0	4	2
	1–4000	4	14	7	11	8	10	7	10	11	7	..	..	4	5	2	7	8	10	10	8	5	1	4	2
"P.C. = 250"	1–5000	3	15	6	12	3	15	3	15	6	12	..	..	3	6	1	8	8	10	9	9	6	0	6	6
Phenol	1–60	±	−	−	..	+	−	−	..	±	−	−	..	+	−	−	..	±	−	−	..	+	−	−	..
	1–70	+	+	+	..	+	+	+	..	+	+	+	..	+	+	+	..	..	..	..	..	+	−	−	..

PART C **Table 3—Semi-micro method using A.O.A.C. Broth and Bacto-oxgall Broth as Subculture media**

		Lab. 1				*Lab. 2*				*Lab. 3*				*Lab. 4*				*Lab. 5*				*Lab. 6*			
		A.O.A.C.		*BOG*		*A.O.A.C.*		*BOG*		*A.O.A.C.*		*BOG*		*A.O.A.C.*		*BOG*		*A.O.A.C.*		*BOG*		*A.O.A.C.*		*BOG*	
M. aureus		−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+
	1–125	8	1	9	0	9	0	8	1	9	0	9	0	0	9	7	2	6	3	0	9	3	0	3	0
Cresylic	1–150	6	3	7	2	6	3	6	3	9	0	9	0	0	9	0	9	5	4	0	9	3	0	1	2
	1–175	1	8	2	7	1	8	3	6	7	2	7	2	0	9	0	9	2	7	0	9	3	0	1	2
Quaternary	1–3000	9	0	0	9	9	0	9	0	9	0	4	5	9	0	0	9	9	0	0	9	3	0	1	2
	1–4000	9	0	0	9	8	1	7	2	9	0	0	9	9	0	1	8	9	0	0	9	3	0	2	1
	1–5000	9	0	0	9	6	3	5	4	9	0	0	9	9	0	0	9	9	0	0	9	3	0	3	0
S. typhosa	1–450	0	9	0	9	3	6	3	6	0	9	0	9	0	9	0	9	0	9	0	9	2	1	3	0
Cresylic	1–500	0	9	0	9	3	6	3	6	0	9	0	9	0	9	0	9	0	9	0	9	0	3	2	1
	1–650	0	9	0	9	0	9	0	9	0	9	0	9	0	9	0	9	0	9	0	9	0	3	0	3
Quaternary	1–2000	9	0	5	4	9	0	7	2	9	0	5	4	9	0	0	9	9	0	5	4	2	1	0	3
	1–3000	9	0	1	8	7	2	4	5	9	0	2	7	9	0	0	9	9	0	2	7	2	1	0	3
Phenol	1–4000	9	0	1	8	7	2	3	6	9	0	2	7	9	0	0	9	9	0	2	7	3	0	0	3
M. aureus	1–60	±	−	−	..	+	−	−	..	+	−	−	..	+	+	−	..	±	−	−	..	+	−	−	..
	1–70	+	+	±	..	+	+	+	..	+	+	±	..	+	+	+	..	..	..	..	..	+	−	−	..
S. typhosa	1–80	+	±	−	..	+	−	−	..	+	−	−	..	−	−	−	..	..	..	..	..	−	−	−	..
	1–90	+	+	+	..	+	+	−	..	+	+	±	..	+	+	+	..	+	−	−	..	+	+	−	..

PART D

Table 4—Aqueous (saline) vs Broth Cultures

		Lab. 1				*Lab. 2*				*Lab. 3*				*Lab. 4*				*Lab. 5*				*Lab. 6*			
		Tamol		*Letheen*		*Tamol*		*Letheen*		*Tamol*		*Letheen*		*Tamol*		*Letheen*		*Tamol*		*Letheen*		*Tamol*		*Letheen*	
		−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+
Ring Test	1–125	7	11	10	8	11	7	7	11	13	5	..	..	..	..	..	..	4	14	5	13	6	0	4	2
M. aureus	1–150	2	16	5	13	7	11	6	12	8	10	..	..	..	..	..	..	1	17	1	17	6	0	3	3
Cresylic	1–175	1	17	2	16	4	14	2	16	4	14	..	..	..	..	..	..	0	18	0	18	6	0	1	5
Quaternary	1–3000	9	9	9	9	13	5	12	6	18	0	..	..	..	..	..	..	8	10	8	10	6	0	6	0
	1–4000	13	5	8	10	13	5	10	8	14	4	..	..	..	..	..	..	7	11	12	6	6	0	6	0
	1–5000	6	12	7	11	11	7	8	10	12	6	..	..	..	..	..	..	8	10	8	10	6	0	5	1
		A.O.A.C.		*BOG*		*A.O.A.C.*		*BOG*		*A.O.A.C.*		*BOG*		*A.O.A.C.*		*BOG*		*A.O.A.C.*		*BOG*		*A.O.A.C.*		*BOG*	
		−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+
Semi-micro	1–125	9	0	9	0	7	2	2	7	..	..	..	..	..	..	..	..	6	3	4	5	0	3	2	1
M. aureus	1–150	3	6	5	4	4	5	2	7	..	..	..	..	..	..	..	..	4	5	0	9	0	3	1	2
Cresylic	1–175	2	7	3	6	0	9	0	9	..	..	..	..	..	..	..	..	0	9	0	9	0	3	1	3
Quaternary	1–3000	9	0	2	7	9	0	8	1	..	..	..	..	..	..	..	..	9	0	2	7	3	0	0	3
	1–4000	9	0	1	8	8	1	7	2	..	..	..	..	..	..	..	..	9	0	0	9	2	1	0	3
	1–5000	9	0	1	8	4	5	3	6	..	..	..	..	..	..	..	..	9	0	0	9	2	1	2	1
Phenol	1–60	+	−	−	..	+	−	−	..	±	−	−	..	..	..	..	..	±	−	−	..	+	−	−	..
	1–70	±	−	−	..	+	+	−	..	+	+	±	..	..	..	..	..	..	..	..	..	+	−	−	..

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Series 2: Comparison Efficiencies of Various Antidotes

PART A

Table 5

		Lab. 1	*Lab. 2*	*Lab. 3*	*Lab. 4*	*Lab. 5*	*Lab. 6*
Cresylic comp.	1–300	------	---	------	------	------	--+
A.O.A.C. method	1–350	------	------	-----+	------	-----+	--+
S. typhosa	1–400	-----+	-----+	+++++	------	--++++	-----+
20°C./10 min.	1–450	----++	-----+	+++++	------	-++++	-+-
	1–500	-++++	-----+	+++++	------	-++++	-++
	1–550		----++				
Same as above: using	1–200	------	-----+	------	------	------	-++++
Semi-micro method.	1–250	------	----++	----++	------	------	--+++
	1–300	------	-----+	-++++	------	------	-++++
	1–350	-----+	----++	+++++	------	--+++	+++++
	1–400	-++++	----++	+++++	------	--+++	-++++
	1–450	+++++	--++++	+++++	------	+++++	+++++

culture media; the other was the standard A.O.A.C. nutrient broth.

Results: The data as obtained from these tests are summarized in Table 1, showing the number of + and of — subculture tubes as obtained in a number (usually around 12) of duplicate tests. No appreciable difference in test results is noted in the series whether or not the thioglycollate was used. One worker stated, however, that from his data he thought "results with the cresylic type disinfectant seemed to indicate that subculturing in N.I.H. broth gave a more critical evaluation than subculturing in A.O.A.C. broth."

Parts B. and C.

Purpose: The objective of these tests was to compare the A.O.A.C., the Ring or Carrier, and the Semi-micro test procedures, using different materials as antidotes in the subculture media.

Procedure: A cresylic type of disinfectant was used in one set of tests, a quaternary in another. Both *S. typhosa* and *M. aureus* were used as test organisms. 20°C. and 10 minutes were the respective test temperatures and contact times. The Carrier method was employed in B, using as neutralizing agents or antidotes in the subculture broth two substances, namely, "Tamol" and "Letheen" for comparative purposes. In C, the Semi-micro method was employed using A.O.A.C. broth and Bacto-oxgall broth as subculture media. References to literature describing these products and their use as "antidotes" in germicidal testing procedures will be found in the bibliography.

Results: Data showing the results of these tests are presented in Tables 2 and 3, arranged in the same manner as in Test 1 (Table 1).

Part D.

Purpose: In this series of tests the objective was to determine if using a saline suspension of bacteria as test organisms gave results markedly different from those as obtained when using the standard nutrient broth culture (A.O.A.C.).

Procedure: Cultures from the same parent were grown on agar and in broth (both A.O.A.C.) for the usual 24-hour period. The broth culture was used "as is", whereas the culture on the slant was removed by adding 10 cc. sterilized normal saline solution and the colony of bacteria present thereon scraped off into the saline solution. This latter was then removed from the agar tube and the bacterial cells suspended in the saline by emulsification through shaking. Each culture was then used for testing in an otherwise identical manner. The data as obtained from these tests are presented in Table 4, where they are more or less self-explanatory.

Results: It is recognized that the number of tests here is rather meager and, therefore, not sufficient to use for making accurate generalizations. However, from the data at hand it would appear that there was not much difference in the findings caused by the two different media used for the culture. If anything, there appears to be a slight advantage due to the broth media, showing results of a slightly stronger test organism being produced.

SERIES 2

Part A.

Purpose: The main objective of this series of tests was to compare a standard cresylic type of disinfectant as to phenol coefficient results when using the A.O.A.C. method and the Semi-micro methods, respectively. No antidotes were required.

Procedure: As required for these two specified methods. S. *typhosa* was the test organism. 20°C. and 10 minutes were the respective temperatures and time of contact used for each series.

Results: The data as obtained

PART B

Table 6

		Tamol/ BOG	*Tamol/ Letheen*	*Tamol/ BOG*	*Tamol/ BOG*	*Tamol/BOG/ Letheen*	*Tamol/ Letheen*
Antidotes:							
Tamol,	1–2000	-+++++	------	------	++++++	-----+	+++
Bacto-Oxgall		++++++	-----+	------	---+++	-----+; ---+++	+++
& Letheen.	1–3000	++++++	----++	-----+	-+++++	--++++	+++
"Cpd. 1622"		++++++	-----++	---+++	-+++++	-+++++; --++++	+++
M. aureus	1–5000	++++++	-+++++	++++++	-+++++	++++++	+++
20°C./10 min.		++++++	++++++	++++++	-+++++	++++++; ++++++	+++
Semi-micro							

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PART C

Table 7

Same as B but using S. typhosa	1–2000	++++++	---+++	------	---+++	---+++	+++
		++++++	------	------	----++	----++	--+
	1–3000	---+++	--++++	--++++	-+++++	-+++++	+++
		++++++	-+++++	-+++++	++++++	++++++	+++
Semi-micro	1–5000	-+++++	+ -+	++++++	---+++	++++++	+++
		++++++	+++	++++++	--++++	++++-+	+++

PART D

Table 8

C.T.A.B. M. aureus 20°C./10 min. Semi-micro	1–2000	++++++	++++++	--++++	--++++	--++++	+++
		-+++++	++++++	++++++	---+++	--++++	+++
	1–3000	++++++	-+++++	++++++	++++++	++++++	+++
		++++++	++++++	++++++	++++++	++++++	+++
	1–5000	++++++	+++	++++++	++++++	++++++	+++
		++++++	+++	++++++	-+++++	++++++	+++

here are presented in Table 5. What they show will appear in the general conclusions covering all four sets of tests, which follow shortly.

Part B.

Purpose: The objective for this series of tests was to compare the efficiencies of the three different antidotes previously studied, namely "Tamol", "Bacto-oxgall", and "Letheen" on the germicidal results as obtained using Rohm and Haas' Compound 1622 as the quaternary.

Procedure: The Klarmann-Wright Semi-micro test method was used here, employing the respective antidotes in the subculture media. *M. aureus* was the test organism. 20°C. and 10 minutes were the respective temperatures and contact times.

Results: The data from these tests are presented in Table 6. For a more detailed interpretation of these results, together with those to be presented below in Parts C and D (Tables 7 and 8), see paragraph in section under discussion.

Part C.

Purpose: Same as in B, just described, but using *S. typhosa* as the test organism.

Procedure: Same as under B, above.

Results: See under B, above. Data presented in Table 7.

Part D.

Purpose: Same as B above, but using W. S. Merrell Co.'s cetyl trimethylammonium bromide (C.T.A.B.) as the quaternary to be examined.

Procedure: Same as under B, above.

Results: See under B, above. Data presented in Table 8.

It was originally planned that phenol control tests would be run for each experiment or for each series of tests carried out. In this manner we hoped to obtain useful data relative to the correlation between test organism resistance and test results using the organism. Unfortunately this was not done in as great a detail as planned. However, the data which were obtained follow in Table 9, with references to the correlative test data to which they belong. These data are too few to make any broad generalizations, but are presented for what they may be worth. We hope some day to extend this particularly interesting and useful problem and gain the additional information needed.

Conclusions

BASED upon the data and experience of the co-workers in running both series of tests, the following conclusions have been drawn:

1) Both the "ring" and the "semi-micro" methods as used here show the "regular" A.O.A.C. procedure to produce grossly inaccurate results as far as the 100% kill end-point is concerned, unless a suitable antidote is employed in the subculture media. This conclusion applies espe-

(*Turn to Page* 181)

Series 2: Phenol Resistance Data

Table 9

PART A							
S. typhosa	1–80	*–*; *–*	+–; +–	*–*; *–*	*–*; *–*	+–; – – –	*–*
A.O.A.C.	1–90	*+*; *+*	+++; +++	*+*; *+*	*+*; *+*	+++; +++	*–*
Semi-micro	1–70	*–*; *–*	+–	*–*; *–*	*–*; *–*	*+– ; *– –	*+*; *+*
	1–80	*+*; *–*	+–	*+*; *–*	*–*; *–*	*+– ; *– –	*+*; *–*
	1–90	*+*; *+*	.....	.....	.....	.....	.....
PART B							
M. aureus	1–60	+–	+–; +–	+–	– – –; – – –	+–; +–	*–*
A.O.A.C.	1–70	+++	+++; +++	+++	+–; ++–	++–; +++	*+*
Semi-micro	1–70	*+*; *–*	.....	.....	.....	.....	.....
PART C							
S. typhosa	1–80	*+–	+–; +–	+–; ++–	+–; – – –	+–; +–	*–*
A.O.A.C.	1–90	*++	++–; +++	.....	++–; ++–	++–; +++	*+*
Semi-micro	1–80	*–*; *+*	.....	.....	.....	.....	.....
	1–90	*+*; *+*	.....	.....	.....	.....	.....
PART D							
M. aureus	1–60	*– –	+–; +–	+–	+–; +–	+–	*–*
A.O.A.C.	1–70	*++	+++; +++	+++	+++; +–	+++	*+*

*means no test made for the 5 and 15 minute time intervals respectively.

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Aerosol Insecticides...

Their Evaluation Against House Flies, Cockroaches

Part I

By A. C. Miller, Arnold Mallis, and R. V. Sharpless*
Gulf Research & Development Company
Pittsburgh, Pa.

THE development of insecticidal aerosols during the past 10 years has necessitated the devising of many new physical and biological testing procedures. Through the co-operative efforts of governmental and association laboratories, the Tentative NAIDM (CSMA) Aerosol Test Method for Flying Insects (Anon., 1949) (Anon., 1950) was adopted. This test employs the Tentative Official Test Aerosol (TOTA) as a standard. Early biological studies of aerosols showed these extremely small particle mists to require different methods of testing than the long used Peet-Grady method (Anon., 1951) which is used to evaluate the oil base household sprays of larger particle size.

In developing the TOTA method, various factors had to be considered. Decisions had to be reached regarding the use of free flying or caged flies, dosage, exposure period, TOTA, test chambers, manner of releasing aerosol, size of test populations, etc. Although decisions were reached, detailed studies to evaluate fully the importance of many of the factors have not been reported in the literature. This paper reports preliminary tests on some of these factors. Our studies concern only liquefied gas-propelled aerosols, although we believe the findings might apply equally well to aerosols produced by other means.

While both the large-group (500 flies) and small-group (100 flies) procedures can be used in obtaining the Aerosol Test Knockdown Mortality and Aerosol Test Mortality, because of the difficulties in capturing the up flies, the small-group method ordinarily is used for the latter determination. The tests reported were conducted according to the large-group procedure as specified in the TOTA method unless otherwise stated. The TOTA nomenclature for reporting the test results is as follows:

(1) Aerosol Test Knockdown Mortality = (% A.T. KD. Mortality)

$$\frac{\text{Dead "Down" Flies} \times 100}{\text{Total Flies}}$$

(2) Aerosol Test Mortality = (% A.T. Mortality)

$$\frac{(\text{(Dead "Down" Flies)} + \text{(Dead "Up" Flies)}) \times 100}{\text{Total Flies}}$$

(3) Aerosol Test Knockdown, 5, 10, or 15 Minutes =

$$\frac{\text{"Down" Flies} \times 100}{\text{Total Flies}}$$

In the determination of Aerosol Test Knockdown Mortality, unparalyzed "up" flies at 15 minutes are counted, discarded, and considered alive at the 24-hour mortality count. In the determination of the Aerosol Test Mortality, up flies at 15 minutes are captured and held for a 24-hour mortality observation. These dead up flies are included with the dead "down" flies in calculating the Aerosol Test Mortality. In our studies, the two, five and 10-minute knockdowns are estimated, and the 15-minute value is based on an actual count.

Both a Peet-Grady chamber, meeting official specifications, and a 1000-cu. ft. chamber were used in our tests. The 1000-cu. ft. chamber is approximately 12 feet square and seven feet in height. The chamber is equipped with observation windows, exhaust fan, and vents. The walls and ceiling are provided with removable metal strips so that the paper covering the interior can be readily removed when contaminated. A fresh paper floor covering is used for each test.

Aerosols are discharged into the Peet-Grady chamber through a six by six inch opening located six inches from the ceiling and four inches from a corner. The bombs are held in an adjustable fixture in a standard manner so that the mist is discharged toward the opposite corner. The fixture, adjustable to various dispensers, is used from test to test to maintain the same height (11 inches from ceiling) and direction of discharge of the mist. In the 1000-cu. ft. chamber, the aerosol is discharged from the center of the room with the bomb held at shoulder level (two feet from the ceiling). During discharge, the dispenser is swung in a complete circle with the mist directed toward the upper corners of the chamber. Dispensers are calibrated and dosages delivered while timing with a stop watch. Dosage delivered is determined by weighing the dispenser before and after discharge. House flies of the NAIDM 1945 and 1948 official strains were used in these studies made during the period 1947 through 1950. The adult flies received

* Presented at 38th annual meeting, C.S.M.A., Washington, D. C. Dec. 4, 1951.

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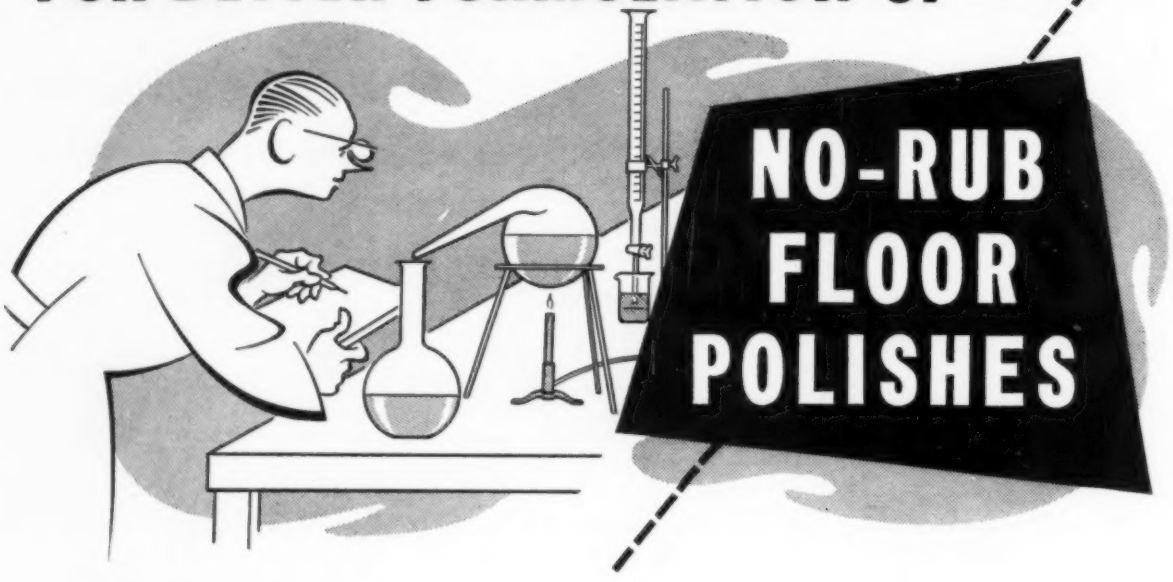

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AGENTS AND STOCKS IN PRINCIPAL CITIES

TABLE I

Effect of Aerosol Dosage on House Flies

Formula	Dosage Average g./1000 cu. ft.	No. Tests	No. Cultures	Per Cent Aerosol Test Knockdown 2 m.	5 m.	10 m.	15 m.	% A.T. KD. Mortality 24 Hrs.
			SERIES A					
Formula A	2.0	8	4	9	32	51	83.5	90.7*
(0.4% Pyr.	4.2	8	4	15	39	56	90.5	93.8*
1.0% P. B.	6.2	8	4	25	46	71	96.4	97.3*
1.0% DDT)								
			SERIES B					
Formula A	4.1	4	2	11	32	55	86.4	86.4
	8.4	4	2	22	44	69	91.9	91.9
	12.6	4	2	25	46	69	92.4	92.4
			SERIES C					
TOTA	2.0	12	6	6	13	23	44.8	44.6
	4.1	12	6	11	22	37	62.6	62.5

* Four tests only on Aerosol Test Knockdown Mortality 24 hours.

a diet of 50% skim milk in water during the aging period prior to testing.

A number of aerosol formulations were used in these tests and their formulas and designations are shown below. With the exception of Formula B, which was discharged from a high pressure Bridgeport Brass Company valved dispenser (1947), all formulas were dispensed from Continental Can Co. concave-top containers. Wherever possible, abbreviated formulations showing insecticidal ingredients are used in the tables:

TOTA (1949-1951)
0.4% pyrethrins, 2.0% DDT, 12.6% petroleum distillates, 42.5% F-11, 42.5% F-12.

FORMULA A
0.4% pyrethrins, 1.0% piperonyl butoxide, 1.0% DDT, 12.6% petroleum distillates, 42.5% F-11, 42.5% F-12.

FORMULA B
0.4% pyrethrins, 2.0% piperonyl butoxide, 1.0% DDT, 16.6% petroleum distillates, 80% F-12.

FORMULA C
0.4% pyrethrins, 1.0% piperonyl butoxide, 1.0% methoxychlor 12.6% petroleum distillates, 42.5% F-11, 42.5% F-12.

FORMULA D
0.4% pyrethrins, 1.0% piperonyl butoxide, 1.0% methoxychlor, 12.6% petroleum distillates, 21.25% methylene chloride, 21.25% F-11, 42.5% F-12.

FORMULA E
0.4% pyrethrins, 1.0% piperonyl butoxide, 13.6% petroleum distillates, 42.5% F-11, 42.5% F-12.

FORMULA F
0.2% pyrethrins, 2.0% synergist 264, 2.0% methoxychlor, 15.8% petroleum distillates, 40% F-11, 40% F-12.

1. *Effect of Aerosol Dosage on House Flies*

TESTS were conducted in the 1000-cu. ft. test room to determine the effect of varying dosages on knockdown and kill of flies. It can be observed from the results in Table I that the 15-minute Aerosol Test Knockdown and Aerosol Test Knockdown Mortality show relatively small differences at approximately two, four, and six-gram dosages and four, eight, and 12-gram dosages when the highly effective Formula A is used. However, this is not the case with the TOTA where there are more distinct differ-

(*Turn to Page* 181)

Bus Terminal

(*From Page* 138)

continuous cleaning activity, so that there is never any accumulation, nor need for a vast crew turning itself loose on a dramatic clean-up tour.

To illustrate how very much there is to be done, and how careful planning and organization gets it done, we include here the areas subject to 24 hour, 7 day service, a resume of the processes and materials used, and some examples of the actual schedule of work for specific areas. Without such precise and extremely detailed preliminary testing and planning on the part of C. P. Fleming and his aides, and the generalship of Messrs. Webb, Conlon *et al.* in handling and routing manpower and work as scheduled, this could easily have been a job which grew like Topsy into a mammoth and extravagantly expensive task.

First, the areas to be cleaned:

In the basement, a total of 11,977 square feet, comprising the engineer's office, lunch room, locker room for employees, shower room, service halls, toilets and washroom, corridor and stair halls, refrigeration room and can washing rooms and incinerator area. On this level, surfaces include cement, either exposed, painted or dust protected, ceramic tile, glass block, and brick in various categories.

Long Distance Bus Level, a total of 132,389 square feet comprising bus drivers' change room, showers, toilets, baggage room, a public concourse lobby and bus platform areas, and bus berths; a service hall, dispatcher's booths and both men's and women's toilet areas. On this level surfaces include large areas of cement, exposed concrete, face brick, ceramic tile, quarry tile, glass block, marble wall, terrazzo and asphalt tile.

Subway Mezzanine, a total of 5,044 square feet, comprising a public concourse of terrazzo, walled in glass block, and an overpass with cement flooring and glazed tile walls.

Main Concourse, (street level), a total of 67,171 square feet, which includes the main public entranceways, waiting room, ticket booths, information center, telephone areas and large men's and women's toilet and washroom facilities. Here the bulk of the floor surfaces are terrazzo, asphalt tile and ceramic tile; walls are marble in public areas and plaster or glazed block elsewhere.

Suburban Concourse, a total of 80,322 square feet, includes another large public concourse area, the offices of the Terminal executives and of the bus companies, a ladies' lounge for office employees, men's and women's toilets for employees, and others for public use, and, tenant office areas. As on the main concourse, floor areas here are terrazzo, ceramic tile and asphalt tile; public walls are marble, office walls plaster, except in toilets where glazed brick is used.

Suburban Bus Level, a total of 142,845 square feet, chiefly composed of bus and platform areas where the daily passenger traffic is heaviest. Also included, however, are more toilet facilities and a commodious elevator and escalator lobby. Bulk of flooring here is concrete paving, with dustproofed cement in lobby, and ceramic tile in toilets and in bus drivers' lock-

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er room. Walls are glass blocks and structural glazed blocks.

Roof Parking Area, this accommodates 450 cars and is, of course, approximately the area of the entire building (800 x 200 ft.) but from a cleaning standpoint includes only a police toilet and a police room, totalling 231 square feet. Toilet floor is ceramic tile, walls glazed block. In police service room, walls are plaster and floor asphalt tile.

Processes and Materials

NOW, as to processes and materials. On the various concourse floors, which are terrazzo, a modern automatic floor cleaning machine is used, which self-contains a leading detergent (two ounces to the gallon of water), revolving scrubbing brushes, and squeegees. While operable by a single man, it is preceded by one or more with brushes, and followed by moppers. Its use (the terminal has three such machines) calls for about one third the manpower and man hours which would otherwise be necessary.

For public walls and pillars in the concourse areas, no machine is used, but the French marble construction, resistant to dirt and markings to a high degree, responds readily to a liquid soap washing.

For tile and glazed tile walls a mild synthetic detergent material is used. Also on the terrazzo; again two ounces to the gallon.

On the vast areas of passenger platforms, concrete for the most part, water flushing is the technique, plus continuous attention from powerful automatic sweepers driven by one man and functioning like a giant size vacuum cleaner.

For bus berths a degreasing agent is used in about a "fifty-fifty" proportion with a water flush.

Metal surfaces are rubbed down daily and cleaned with a paste type polish as needed. Since these surfaces are largely on moving staircases and on interior partitions and doors the cleaning process is rotational more or less as traffic permits. In effect, this means that metal surfaces somewhere in the building are being treated all the time.

Disinfectants are used in all washrooms and toilet areas daily, and dispensers are filled with liquid soap.

For office flooring, largely asphalt tile, a durable non-slip wax is used, and there is continuous rotational buffing.

On furniture and wood surfaces generally, a wax type polish is used.

Dusting and waste emptying from tenant office areas is done each night.

It should be noted that all phone booths are also cleaned by the terminal staff, and that washroom supplies, general maintenance of lighting fixtures and bulbs, etc., is in the schedule too.

Back to headquarters where C. P. Fleming's department, which controls this whole cleaning program, handles principles and policies of the Port Authority on the testing, approving and buying of cleaning materials and equipment. Remembering that the bus terminal is but one of sixteen Port Authority transportation and terminal facilities which serve the public, it is easily understood that testing and buying new materials must be a rigidly precise, completely "open to all" kind of job, with *objective standards* of quality and performance as its foundation. With such vast quantities needed, it might be supposed that mass or bulk buying would be general practice; but the contrary is true, with rare exceptions in cases where the Authority compounds its own materials from bulk ingredients. Even then it is avoided if a commercial product can be found to meet the standards established. The reason for this is contained in the basic principle of fairness to all potential vendors, absolute impartiality, and, obviously the utmost care in getting the most for every bondholder's dollar.

In other words, the doors are never closed to a new product, as they could be if, let's say, a year's supply of a soap or detergent were laid in, or even a few month's supply. The search is constant and aggressive for new materials or equipment which will do the job a little better, or meet the standards for a lower cost. The power of this principle is perhaps best illustrated by the use, through all purchasing by the Authority, on all requisitions, of the phrase "or its equivalent" when a specific product is named.

Thus, Mr. Fleming must and does see all potential vendors who may knock on his door. He does not execute orders which is, of course, the function of purchasing, nor is he, on paper nor always in fact the first port of call for a salesman of cleaning materials. But he is the instrument, as Supervisor of Cleaning Standards, through whom adherence to standards of quality and performance as established, must be achieved.

That works this way: a proposed new product reaches Mr. Fleming's desk through any of several channels. It is given a laboratory test. This test is entirely independent of personal opinion. Objective standards are its basis of judgment. Then it is given a rigorous performance test. If it passes both, or exceeds previous values of a product then in use, it is included on a list of approved products, which is continuously added to and subtracted from. Even now, it does not indicate it will be purchased in any but "beginning" quantities, because the requisition phrase "or its equivalent" is always there.

It should not be inferred that such care in buying impartially means that competent products are being constantly kicked off the list. In actual practice it is clear that many substantial, time proven materials, are almost always approved for purchase.

We have made such a strong point of these policies to leave the reader with the concluding conviction that the yield of such careful buying, testing and planning is a constant improving of efficiency and economy in the execution of the cleaning job to be done. —— • ——

Wall Joins H. J. Mahar

Fred J. Wall has joined the domestic and imported wax brokerage firm of H. J. Mahar, 54 W. 55th St., New York 19, Helen J. Mahar announced recently. Mr. Wall had been with Simoniz Co., Chicago, for thirty years in various executive capacities, including managing the firm's Trenton, N. J. plant.

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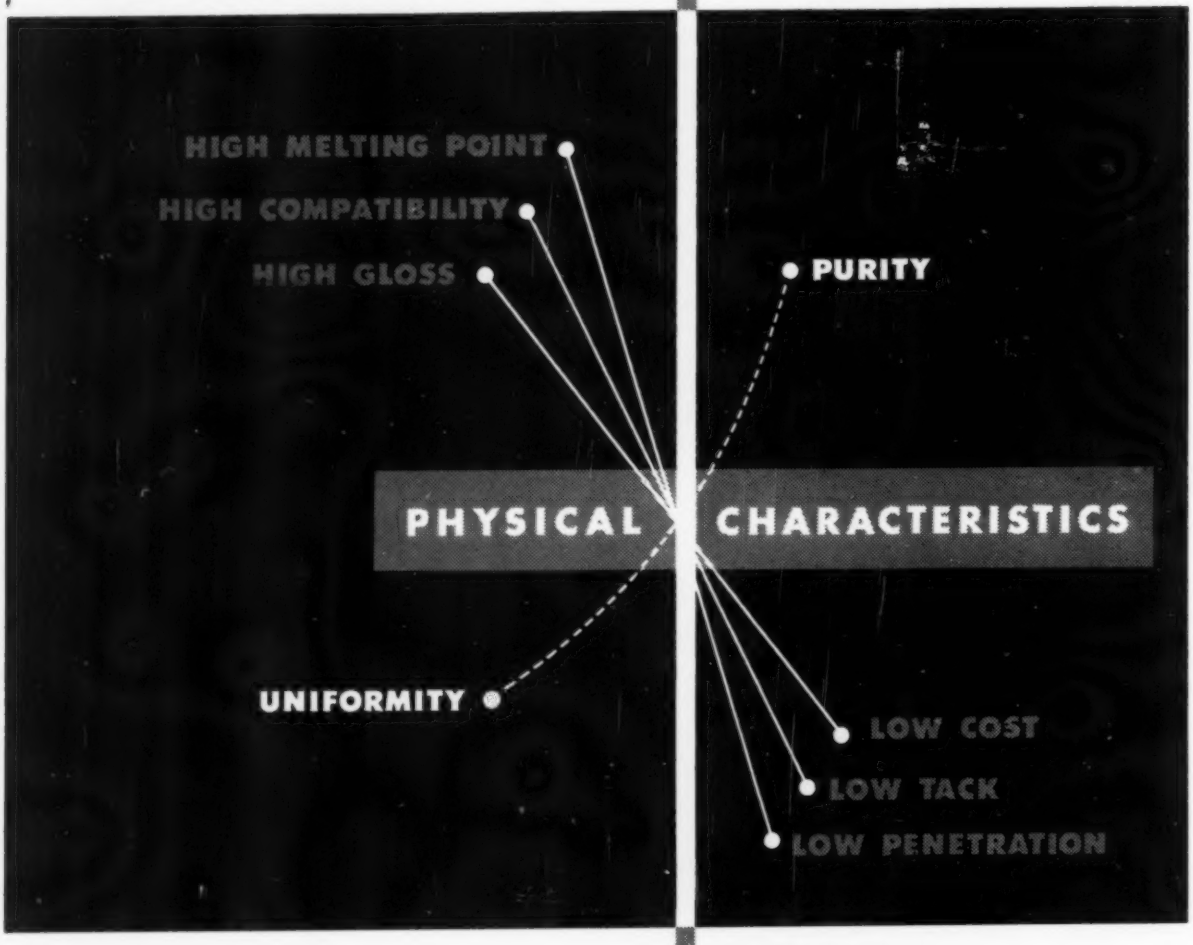

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700	190/195	5 max.	2 to 2½	Nil	Nil
1035	195/200	2 max.	2 to 2½	Nil	Nil
★ 23	180/min.	4 to 6	4 to 5	20-25	55-65
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Reader Sees It

(*From Page 41*)

Can't depend on scum

Editor:

Controversy over syndets playing havoc with home clothes washers simmers down to where each side admits some of the blame. . . . Syndets should not be too alkaline or pitting of aluminum parts will occur. A small amount of silicate is claimed effective against corrosion. . . . Syndets, unlike soaps, do not leave a protective film on metal parts or around gaskets. Instead syndets leave the surface clean as it should be . . . so manufacturers of laundry equipment can no longer depend on a layer of scum to fill in where designing left off. Progressive manufacturers know syndets are here to stay and have redesigned their equipment to meet the new conditions.

J.W.M.
New York

And that, Mr. Washing Machine Manufacturer, is telling you in plain language. Haven't detergents been on the market long enough for you to know this yet?—Ed.

Soap Meetings

(*From Page 45*)

trial Soap Division. It opened with a discussion of "Government Research Requirements and Specifications on Soaps and Synthetic Detergents" by Harry Fleisher, head of the Chemistry Branch, Materials Development Division, Bureau of Ships, Department of the Navy. Mr. Fleisher, who is also chairman of the technical committee of soaps and cleaning compounds of the Federal Specifications Board, described the revised system of interim Federal specifications which has been instituted in recent months to provide means of speeding the process by which Federal Specifications are made available for purchase requirements. Such specifications, he said, carry the same familiar alphabetical symbols, suffixed with a symbol indicating the preparing agency. These specifications, while issued for the immediate use by any government agency, are subject to later coordination with industry and other government agencies. They may even have a more far-reaching effect on production plans of manufacturers than can be predicted. With agencies empowered to write their own individual requirements into specifications, it is highly probable that performance criteria, satisfactory to the agency concerned, will be incorporated, Mr. Fleisher declared.

"Interim Federal specifications, I predict, will include a sizeable percentage of qualified products, list requirements, with the agency concerned conducting its own experiments," he said. Mr. Fleisher also added "I even believe some agencies will stipulate practical tests of performance in actual service under the eyes of a group of skilled observers. With performance destined to play such an important role in government purchasing, it is fitting that you people, in the interest of self-protection see to it that the tests used are valid, reliable and impartial, and do not impose undue hardships on your productive capacity and ability."

New Specifications

NEW specifications now in the drafting stage include those on a number of new items, Mr. Fleisher said. These include baking pan cleaners, waterless hand cleaners, skin protective creams, steam-cleaning compound and dishwashing compound. Specifications for an upholstery cleaner and a furniture polish are under consideration.

A revision of the dentifrice specification, FFF-D-1911 is in progress and will be completed by mid-spring.

Revisions of the white floating soap specification, P-S-616; the caustic soda specification, P-S-631, and the grit cake soap specification, P-S-571, are almost completed, Mr. Fleisher revealed. He also pointed out that a revision of the borax soap specification, P-S-628, was issued recently to provide for a second type of product which has been enjoying increased demand by government agencies. The specification also includes a new analytical method for borax based on work conducted by the Naval Industrial Test Laboratory, and reported by Messrs. Bernstein and Haftel. A revised issue of the chip soap specification, P-S-566, has been promulgated, and will soon be amended to provide for a six per cent maximum alcohol insoluble in lieu of the present four per cent. The automobile soap (liquid and paste) specification, P-S-611a, covering what was thought to be a good salt water soap back in the days before Pearl Harbor, has been cancelled because of inactivity.

The speaker also pointed out:

"With regard to the use of soiled-swatches, I wish to state publicly what I have stated privately to many of your representatives. I hold no brief for any particular artificially soiled-cloth as the only criterion of performance. Rather I contend that soiled-cloths should be used as indices of performance so as to minimize the need for time consuming practical tests, but final evaluation should ultimately be made in the laundry wash wheel. This position is reflected in Navy Specification 51-S-47 for sea-water laundry detergent. You can recognize that we have not altered this position since World War II days.

"Another interesting development of joint NSIA-Navy sponsorship is the salt-water bar soap. You will all recall the starch-synthetic bar which was the Navy standard under Specification 51-S-46. It was a good bar in that it cleaned well in sea-water. But it was lacking in several unrelated but important respects; poor lathering and poor appearance. We will be purchasing salt-water bar soap formulated according to the following composition:

Moisture	25%	Maximum
Synthetic detergent..	25%	Minimum
Sum of synthetic detergent and tallow soap...	60%	Minimum
pH of 1% solution...	10.2	Maximum
Titer of fatty acids ..	40°	Minimum
Sodium carboxymethylcellulose	1%	Minimum
Cleaning efficiency in 1% concentration in sea-water using the painted panel test method described In Specification 51-S-46	95%	minimum

Because of the difficulty in developing a reliable laboratory lather test that will correlate with skin lathering tests, it is probable that the specification will ultimately be issued with a requirement for qualified brand approval.

"Sea-water degreasing is another requirement of the Navy in shipboard use, where fresh water is a critical item. Our research work on this subject has yielded promising results, and has shown that the polyglycol ethers of certain types are the most

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effective for large scale degreasing operations with sea-water. A specification, MIL-W-16791 (SHIPS), recently issued, has been designed to govern procurement."

A discussion of "Processing and Laundering New Fibers and Textiles" by Francis Richardson, technical director of Waldrich Chemical Co., concluded the session.

Two social events highlighted Jan. 22. The annual "Maid of Cotton" fashion show took place in the afternoon, and was followed by a cocktail reception in the Sert Room in the evening. *McCall's* magazine was host for the latter affair.

Synthetic Detergents

THE second day of the meeting, Jan. 23, began with the convention breakfast, for which *True Story* magazine's women's group was host. The general session in the grand ballroom, presided over by George A. Wrisley of Allen B. Wrisley Co., opened with "An Appraisal of the Synthetic Detergent Development" by Lawrence H. Flett of National Aniline Division of Allied Chemical and Dye Corp., New York. Mr. Flett pointed out that although there are "serious problems in the supply of raw materials," "if the present rate of increase (in synthetic detergent production) should be maintained, the two-billion mark would be reached in 1953." In 1951, production of synthetic detergents was at the rate of approximately one and one-half billion pounds, according to Mr. Flett.

He also stated as his belief that "whatever the bottom (of fat consumption for soap) of the present downward trend may be, soap production will continue to expand." Mr. Flett also declared that "industry is making better soap today than it has ever made, a fact which deserves wide publicity. . . . The soap business is still a good business, and it is to be expected that soap manufacturers will expand their soap research and develop improved products to meet increased consumer demands."

"We start 1952 with very serious problems of materials, equipment and substantially anything needed for expansion (of synthetic detergent production)", Mr. Flett said. He added: "'It would seem to be a reasonable viewpoint to expect an easing off of the market expansion in synthetic detergents. However, it is difficult to close our eyes to the fact that exactly the same situation existed a year ago and was widely publicized with respect to synthetic detergents. In spite of the many problems, the synthetic market continued to expand in 1951 at its normal but phenomenal rate."

Speaking of synthetic detergent raw materials, Mr. Flett pointed out that "benzene, kerosene, propylene and ethylene, which are the basic products used in the manufacture of detergents made from petroleum, were all by-products at one time, but they are not by-products any more. Benzene was once disposed of by selling it as a low price gasoline, but the by-product coal tar from the steel and gas industry no longer supplies an adequate amount of benzene. At present synthetic benzene is being used for synthetic detergents. Kerosene ceased to be a by-product when the first cracking process was developed, while today there is scarcely an adequate supply for fuel. Propylene and ethylene, once waste products of cracking, became valuable with the process to make them into high-test gasoline and later into aliphatic chemicals. At present, they are manufactured separately because supplies are inadequate.

"Looking at the over-all picture, there are serious problems in the supply of raw materials, but these problems are essentially problems of the long range future. The problems of 1952 are the same kind of problems that were solved in 1951."

Government Panel

FOLLOWING a review of the activities of the cleanliness promotion of the AASGP's Cleanliness Bureau by William G. Werner, director of public relations of Procter & Gamble Co., a panel discussion was presented dealing with the effect of the defense program on the soap and synthetic detergent industry in the year ahead. Representatives of the U. S. Department of Agriculture, the National Production Authority, and the Office of Price Stabilization participated.

"The U. S. Department of Agriculture is concerned about the raw material situation for the soap industry — not because (it is) using too much of (its) principal raw materials, fats and oils, but because (it is) using too little," Robert M. Walsh, Deputy Director, Fats and Oils Branch, Production and Marketing Administration, U.S.D.A., declared. "Consumption of soap," he said, "has fallen by six or seven pounds per person since 1948." At the same time, retail sales of synthetic detergents, made principally from petroleum products, have risen about five pounds per person, more than doubling during the period."

Production of tallow and greases is now about three times the 1921 rate, Mr. Walsh said. He indicated that 1952 production would be slightly more or slightly less than in 1951. Both hog slaughter and cattle slaughter currently are at high levels, he said. He also reported that hog slaughter this winter and in the coming spring will be of near-record proportions, reflecting the large pig crops of 1951. Beginning next summer or fall, however, hog slaughter will begin to show a declining trend, Mr. Walsh predicted. He said that new uses for tallow and increased exports were helping some to offset large production of tallow and greases and lowered consumption by the soap industry.

The second speaker on the panel, Kenneth H. Klipstein, assistant administrator, National Production Authority, Dept. of Commerce, Chemicals, Rubber and Forest Products Bureau, gave a brief resume of the basic operation of the defense agencies and outlined the obligations of both industry and government toward the mobilization program.

The function of the Chemical Division of the National Production Authority was described briefly by Osgood V. Tracy, director of the division's Chemical, Rubber and Forest Products Bureau. He pointed out that the Chemical Division has avoided the wholesale imposition of blanket controls. "It will continue its effort to

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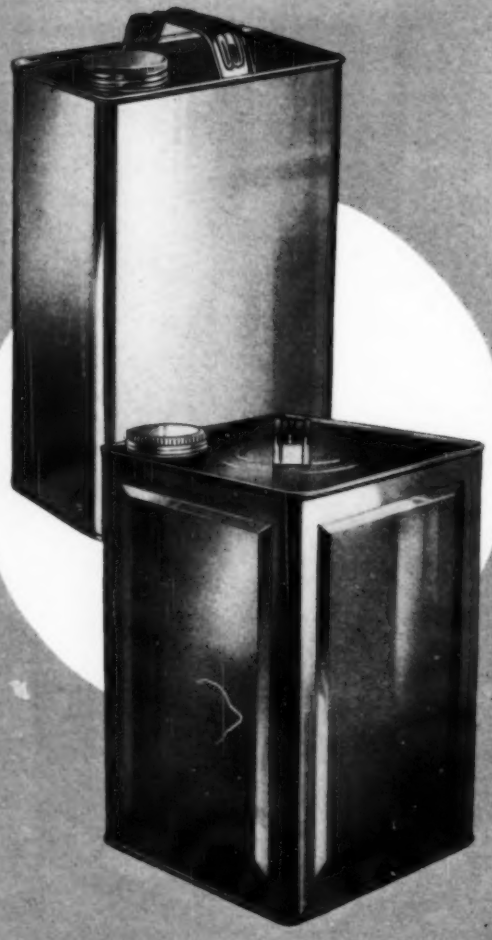

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meet individual or localized crises in supply or distribution by individual directive action. NPA today has only seven chemicals under full allocation; three others were on allocation until the supply-requirement situation was relieved, at which time controls were promptly withdrawn," Mr. Tracy said.

Raw Materials Outlook

AFTER explaining that his agency is to a great extent a claimant agency for soaps, synthetic detergents and other types of cleaners, and that a share of its work is to make sure that other government commodity sections and agencies understand the importance of the products under its jurisdiction, Albert S. Burgess of the Glycerine, Soap and Synthetic Detergents section of the Chemical Division of NPA, outlined the current situation on raw materials for these products. The alkalies should be in sufficient supply to support all requirements, he said. The situation on supplies of sodium phosphates has improved some in recent months, because of a lowering of demand. Prospects for 1952 are generally favorable. Mr. Burgess explained the sulfur and sulfuric acid orders, which went into effect Jan. 1, as "not limiting the use of sulfuric in the production of any products." "It allows you to continue to do business in a normal manner in respect to the purchase and use of sulfuric acid," he said. Additional restrictions on use might be necessary later, he added, stating that time alone can furnish the answer to future availability.

On containers, Mr. Burgess pointed out that there is no indication of relaxing can Order M-25 and it may be necessary to rely on Government stock pile of tin for can making during the second quarter. Order M-75 on steel drums was amended recently. It did not change the quota base, but did liberalize some features. The packaging of detergents was liberalized reducing the caustic limit from 70 to 45 per cent. The 45 day inventory clause was liberalized by applying it to each type and size of container, instead of its previous application on a total basis. The supply of drums during the second quarter is expected to be approximately the same as in recent quarters. The time is not in sight when the revocation of this order can be expected, Mr. Burgess said.

Fiber drums which use metal ends and bands are getting the metal they need for their production, and with no shortage of kraft pulp, fiber drums are in good supply and are expected to continue so. With new types of lining now available for fiber drums, they are replacing steel drums for many uses.

Order M-51 on glass containers was revoked recently reflecting an easier situation in that field.

Corrugated and solid fiber shipping containers are in good supply at the present time, and new facilities for the production of kraft pulp are coming in. The outlook for 1952 indicates that these supplies should continue to be readily available, Mr. Burgess concluded.

Price Regulations

THE Office of Price Stabilization is attempting to "perpetuate the relative stability of prices" that has come about since the establishment of governmental price controls about a year ago, it was pointed out by Edward F. Phelps, Jr., acting director of the Office of Price Stabilization. After discussing generally the problems of price control, Mr. Phelps stated that the stabilization that has come about in prices over the past few months has been brought about by natural forces as well as by price controls. On the question of widespread lowering of ceiling prices on "soft markets," Mr. Phelps said that such action will be confined to a relatively few commodities where the passage of time has clearly demonstrated that original ceilings established last spring or summer are now clearly excessive and have no relationship to the facts of life, either economic or of any other kind.

The concluding session of the discussion portion of the program was the meeting of the Specialty Soap Division, the afternoon of Jan. 23. It followed the group luncheon in the grand ballroom, for which Elmo Roper, New York public opinion analyst was the guest speaker.

Gordon on Tax

THE Specialty Soap Division meeting opened with a discussion by John B. Gordon, secretary of the Bureau of Raw Materials for American Vegetable Oils and Fats Industries, on the coconut oil processing tax. After outlining the functions of the Bureau, which he said "cuts across the lines of many trade associations because it is concerned solely with raw materials problems," Mr. Gordon gave some of the background of the tax, which went into effect in 1934. He revealed that a bill to have the tax repealed was to be introduced in the House of Representatives by Frank Havenner of the Fourth California District (San Francisco). Five situations existing in May, 1934, when the tax was levied, and which do not exist today were cited and elaborated on by Mr. Gordon in supporting Representative Havenner's bill. The Havenner bill, incidentally, would not revise the two-cent differential in favor of coconut oil originating in the Philippines, which runs until 1974. Mr. Gordon also described efforts to have the tax eliminated during the hearings and voting on the Customs Simplification Bill, which provides that the processing tax become an import duty to be collected at the port of entry. The Customs Simplification Bill passed with section 23, covering the transfer of the tax. Efforts to have the section eliminated during hearings were ruled as out of order, since the bill was not designed to raise or lower taxes, according to Mr. Gordon. Mr. Havenner's bill however asks for outright elimination of the section and repeal of the tax.

The use of radioactive materials to measure, among other things, soil removal was discussed and illustrated in a presentation by Dr. Paul C. Aebersold, chief of the isotopes division of the U. S. Atomic Energy Commission, Oak Ridge, Tenn. He explained what isotopes are, what their characteristics are, how they are made and detected, why they are useful both as sources of radiation and as "tracer" atoms, what kinds of applications have already been made of isotopes in in-

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dustry and the types of applications that may be made in the future.

Isotopes for Detergent Tests

DR. AEBERSOLD also demonstrated with a Geiger counter equipment used for detecting the radiations emitted by radioisotopes, and also showed a number of slides illustrating ways in which isotopes are being used. Applications in the soap and synthetic detergent industries were outlined. Many kinds of studies are possible in these industries, using the isotopes as tracer atoms to follow the transport of very minute amounts of material or the mechanism of reactions, Dr. Aebersold pointed out. For example, he stated, isotopes can be used to "tag" or label soaps, detergents or other surface active agents to determine how much of such material remains on various fabrics under a wide range of conditions of use. They may also be used to label constituents of hard water, such as calcium ion, to test the degree of absorption onto cloth and the degree of removal from it using a variety of agents. Radioactive elements can also be employed in labeling typical kinds of dirt or soil that must be removed from fabric by laundering and then test their removal by different kinds of laundering processes.

The concluding event of the meeting was the reception and dinner in the grand ballroom. Robert Vogeler, for 17 months a prisoner of the red-dominated government of Hungary, discussed his ordeal. Entertainment provided by the four major radio and television networks and dancing followed.

Fatty Acid Meeting

THE day before the opening of the meeting, a special, advance session of fatty acids producers was held. This meeting, presided over by E. A. Moss of Swift and Co., was highlighted by a discussion of the current status of the industry and a panel discussion featuring representatives of consuming industries as to their requirements, specifications and product trends affecting fatty acids. Sewall D. Andrews, Jr., of General Mills, Inc., Minneapolis, was panel moderator.

S. K. Plasman of the marketing research department of Armour & Co., Chicago, reviewed the progress of the modern fatty acid industry as revealed by statistics showing different phases of industry activities. The statistics, according to Mr. Plasman, reveal a historical pattern of change in: levels of activities; products to meet the varying needs of industry and, in more recent years, in consumption pattern.

Tables on fatty acid production, production indices, domestic fatty acid consumption, inedible end use of stearic and oleic acids by products; monthly domestic production, consumption and end of month stocks of stearic acid, domestic shipments of saturated fatty acids, domestic shipments of unsaturated fatty acids, and production disposition and stocks of domestic unsaturated and saturated fatty acids, were presented by Mr. Plasman.

Detergent-Sanitizers

(*From Page* 141)

ciency of the product accurately. As yet, quaternaries cannot be evaluated for residual available activity since the element which identifies them, nitrogen, is not the factor for bactericidal action. However, their use should not be penalized because of that.

Another factor cited is that cleaner-sanitizers retard or inhibit lactic acid production in the process of manufacturing cheese, butter, buttermilk and other dairy products. Actually, the offender is the indiscriminate use of antibiotics in the treatment of cattle. Overnight, dairymen have become veterinarians with alarming results. The American Dairy Science Association's committee on antibiotics in milk has just issued a warning in no uncertain words on this subject.

Although cleaner-sanitizers can and will be improved in a practical sense, their use now is a step in the right direction for securing better sanitation results with lower operating costs, without the need for policing or drastic measures.

In conclusion, it is fitting to quote two scientists who use a common-sense approach to the problem of sanitation. As Dr. W. S. Mueller of the University of Massachusetts aptly states, "detergent-sanitizers should be purchased only from reliable companies whose products are compounded on the basis of fundamental research work. Unfortunately, the introduction of new products is apt to be accompanied by fly-by-night organizations which compound their products in a hit-or-miss fashion."

We agree thoroughly with Dr. W. L. Mallman of Michigan State College, in his statement on the subject of sanitizers, which is also applicable to cleaner-sanitizers. He says, "it is necessary for laboratory techniques to measure an almost total kill for regulatory control, but such regulatory procedures should not be used for evaluating the possible practical application of a sanitizer or disinfectant. Does the product do a satisfactory job in the field? Does it eliminate health hazards? Can it lessen microbial contamination?

"If the end results are satisfactory, the product should be approved, irrespective of whether its phenol coefficient is 5 or 250, whether it is affected by organic matter, in high or low dilutions, or other factors which may not be particularly important in field use."

—— • ——

NYQ Moves to Newark

New York Quinine & Chemical Co. recently moved from the historic Brooklyn site at 101 N. 11th St. it has occupied continuously for the past 65 years to a newer, more spacious and completely modernized plant at 158 Mount Olivet St., Newark, N. J. NYQ, acquired about four years ago by S. B. Pennick & Co., New York, formerly was part of McKesson & Robbins until 1925. The new Newark plant has about five times the floor space of the old quarters and embraces some 25 buildings on about 11 acres of land. It is located near the heart of Newark's manufacturing center and has two railroad sidings. Timed to coincide with the transfer of manufacturing facilities from Brooklyn to Newark, is the shifting of executive and sales offices of NYQ to the seventh floor of 50 Church St., New York, address of the parent company.

Bilco

For further details see March SOAP & SANITARY CHEMICALS

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KOPPERS

News

Wells in Peck's Post

Louis E. Wells, Jr., formerly with the research and technical sales departments of the phosphate division

LOUIS E. WELLS, JR.

of Monsanto Chemical Co., St. Louis, recently joined Peck's Products Co., St. Louis, as director of research and product development. A native of Monroe, La., Mr. Wells was graduated from the school of chemical engineering of Louisiana Polytechnic Institute at Ruston, La., in 1941. Since 1944 he has done research, product development and technical sales work on wetting agents and detergents at the research laboratories of Monsanto in Anniston, Ala. and the Central Research Department at Dayton, O. He is a member of the American Chemical Society.

Harold King Dies

Harold R. King, 53, president of Prentiss Drug and Chemical Co., New York, died January 28th in the Hernando County Hospital, Brooksville, Florida, after suffering a heart attack.

He was born in Minneapolis, and was graduated from the University of Minnesota. After serving overseas in World War I with the Medical Corps, he began his career in the drug, insecticide and chemical business in New York with H. Benkhert Co. in the early 1920's. Mr. King was prominent in the botanical drug, chemical and insecticide field for the past 34 years, and has been connected with his present firm for the past 20 years.

Mr. King has lived in Westfield for about 25 years where, until recently, he was active in the work of Masonic and amateur dramatics organizations. He was one of the original founders of The Westfield Community Players. He was a Past Master of Atlas Lodge No. 125 Free Accepted Masons, and a member of the Corinthian Chapter No. 57 Royal Arch Masons, both of Westfield.

Surviving are his wife, Effie Adams King; his parents, Mr. and Mrs. George A. N. King of Minneapolis, and two brothers, Herbert and Allen.

Religious and Masonic services were held at Gray's Funeral Home, Westfield, N. J., Feb. 2nd. Interment was in Fairview Cemetery, Westfield, New Jersey.

On Gerson-Stewart Board

Gerson-Stewart Corp., Cleveland, manufacturers and research laboratories for industrial and institutional sanitation equipment, recently announced the election of M. J. McDonnell, for many years sales manager of the company, to its board of directors. Mr. McDonnell, who has been with the company in various capacities for 26 years, most of which as sales manager, was born in St. Louis, attended Western Reserve University and was an airplane pilot in World War I. Other members of the Gerson-Stewart board of directors are Walter Haas, chairman; Mrs. Anita W. Gerson, Joseph Berne, L. H. Gerson, Jr., A. G. Bowers and John Borgert.

National Labs. Expands

Announcement of the completion of a $100,000 expansion program by National Laboratories, Inc., Toledo, O., was made recently by L. C. Van Nest, president of the company. The program, necessitated by a 30% increase in sales volume during 1951, included the enlargement of the home plant, an increase in the number of offices by 50% and improvement of production facilities.

In connection with the expansion program, Mr. Van Nest also announced five staff advancements.

L. C. VAN NEST

Appointed were: P. C. Scott to general sales manager, H. S. Williams to assistant general sales manager, I. A. Claus to assistant to the general sales manager, E. T. Swigart, Jr. to promotional sales manager and W. D. Williams to production and technical director.

At the same time, National Laboratories issued bulletins on "N-L Concentrate," a concentrated, non-caustic cleaner said to be suitable for any kind of surface and on "Vani-sol", a liquid toilet bowl cleaner designed to clean, deodorize and sanitize in one operation.

Frank W. Adams Dies

Frank W. Adams, 63, who joined Fuller Brush Co., Hartford, Conn., as an auditor in 1921 and eventually became vice-president and general manager, died Jan. 19, in Hartford Hospital after a long illness. He was also a director of Mohawk Brush Co., Albany. A native of New Milford, Conn., Mr. Adams served in World War I as a second lieutenant. He is survived by his widow, Mrs. Elinor Lathrop Adams; a daughter, a son and a stepson, as well as by a brother and sister.

Class will tell

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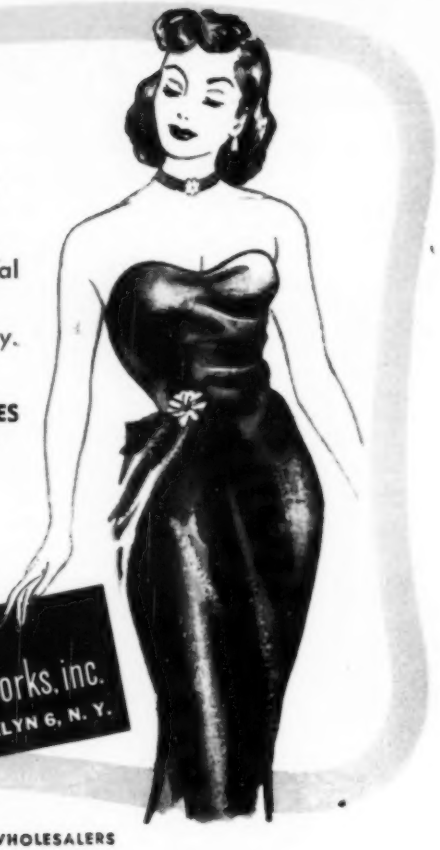

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SANITARY SUPPLIES MANUFACTURERS FOR DISTRIBUTORS — JOBBERS — WHOLESALERS

C.S.M.A. Lists 1952 Committee Chairmen

A complete list of all its 1952 committees was issued recently by the Chemical Specialties Manufacturers Association, New York. The committees and their chairmen include:

Executive, Melvin Fuld, Fuld Brothers, Inc., Baltimore; Legislative, W. S. Jessop, U. S. Sanitary Specialties Corp., Chicago; Toxicity, Carlos Kampmeier, Rohm & Haas Co., Philadelphia; Membership, D. M. Martin, General Dyestuff Corp., New York; Associate Members, George H. McGlynn, Magnus, Mabee & Reynard, Inc., New York; Publicity, J. M. Dolson, Hercules Powder Co., Wilmington, Del.; Publication Advisory, Dr. Ralph Dowing, E. I. duPont de Nemours & Co., Wilmington, Del.; Greetings, G. E. Doerr, Federal Varnish Division, Chicago; Program, T. Carter Parkinson, McCormick & Co., Baltimore; Arrangements, H. W. Hamilton, C.S.M.A.; Entertainment, William Flatow, Jr., West Disinfecting Co., Long Island City, N. Y.

Aerosol Division Committees: Administrative, Edmond G. Young, E. I. du Pont de Nemours & Co., Wilmington; Scientific, W. E. Graham, Crown Can Co., Philadelphia; Commercial Practices, T. B. Welsh, Gulf Oil Co., Pittsburgh; Membership, Harvey Tull, Crown Can Co., Philadelphia; Program, George Barr, G. Barr & Co., Chicago. Scientific Sub-Committees: Insecticide Standards, E. J. McKernan, Continental Filling Corp., Danville, Ill.; Flammability, W. E. Baulieu, Bridgeport Brass Co., Bridgeport, Conn.; Safety & Accident, J. F. Buchanan, Continental Can Co., New York; Public Relations, W. E. Graham; Check List, H. R. Shepherd, Connecticut Chemical Research Corp., Bridgeport; Aerosol Methods, E. J. McKernan; Paint Products Methods, J. J. Gregory, Aeropak, Inc., Chicago; Personal Products Methods, Eugene Rose, George Barr & Co., Chicago.

Disinfectants and Sanitizers Division Committees: Administrative, W. X. Clark, Sterwin Chemicals, Inc., New York; Scientific, R. C. Sherwood, Sterwin; Program and Disinfectant Specifications, Harold G. Lederer, R. M. Hollingshead Corp., Camden, N. J.; Marketing, Gordon M. Baird, Baird & McGuire, Inc., Holbrook, Mass.; Chemical Analyses, John Gain, Winthrop-Stearns, Inc., Rensselaer, N. Y; Defense Emergency, W. X. Clark; Publicity, Harold G. Lederer; Scientific Subcommittees: Sanitizers, Irving Gaines, Onyx Oil & Chemical Co., Jersey City, N. J.; Disinfectants, A. G. Bowers, Hunt Mfg. Co., Cleveland; Quaternaries, J. B. Dienna, Rohm & Haas Co., Philadelphia; Antiseptics, A. Cade, Givaudan-Delawanna, Inc., Delawanna, N. J.

Insecticide Division Committees: Administrative, James A. Green, Standard Oil Co. (Indiana), Chicago; Scientific, Dr. Donald F. Starr, S. B. Penick & Co., New York; Chemical Analyses, R. C. Haring, John Powell Laboratories, Inc., Port Jefferson, N. Y.; Program and Defense Emergency, George W. Fiero, Esso Standard Oil Co., New York.

Soaps, Detergents and Sanitary Chemicals Division Committees: Herbert L. Sanders, Ninol Laboratories, Inc., Chicago, Scientific, J. C. Harris, Monsanto Chemical Co., Dayton, O.; Asphalt Tile Cleaning, R. B. Trusler, Davies-Young Soap Co., Dayton, O.; Emulsions, H. L. Sanders; Dishwashing, J. C. Harris; Legislative, D. M. Martin; Toxicity, Norman Pyle, Atlas Powder Co., Wilmington; Program, George Barker, Atlas Powder; Publicity, J. B. Dienna; Defense Emergency, P. G. Bartlett, West Disinfecting Co.

Waxes and Floor Finishes Division Committees: Donald M. King, Masury-Young Co., Boston; Scientific, H. J. Mellan, Durez Plastics & Chemicals, Inc., North Tonawanda, N. Y.; Marketing, James A. Green; Program, C. S. Kimball, Foster D. Snell, Inc., New York; Membership, J. T. Casey, Brulin & Co., Indianapolis; Subcommittee A, G. R. DeNapoli, Masury-Young; Subcommittee L, C. S. Kimball; Subcommittee W, A. L. Sodergreen, West Disinfecting Co.

Eaton Names Distributor

J. T. Eaton & Co., Cleveland, recently appointed Ritchie & Janvier of Bloomfield, N. J., as national distributor in the drug field for its line of "Rough and Ready" rodenticides.

Conference on Insect Damage To Stored Food Products

SOLUTION of the numerous problems of insect and rodent damage to foods in storage and process through closer cooperation between the U. S. Department of Agriculture and industry was the objective of a conference held in Washington, D. C. on January 22. The meeting of thirty representatives of leading trade associations and U.S.D.A. officials was presided over by Herman Fakler, vice-president of the Millers' National Federation. Among those who spoke were Avery S. Hoyt, Chief of the Bureau of Entomology and Plant Quarantine, Dr. F. C. Bishopp, Dr. C. H. Hoffmann, Dr. L. S. Henderson, Dr. R. T. Cotton, and Randall Latta, the latter head of the Division of Stored Product Insect Investigations, U.S.D.A.

The government speakers outlined the facilities of USDA to aid industry in its research problems, noting that many troubles during storage actually begin in the field as far as insect infestation and contamination are concerned. It was pointed out that three main routes of attacking the problems through the eleven USDA field laboratories were (1) in stored plant products, (2) household and industrial insects, (3) special problems and techniques. Dr. Cotton, head of research on stored plant products, furnished a printed outline on the facilities and work of this section. Dr. Henderson pointed out that the main laboratory for household and industrial insect work is at Savannah, Ga. although Beltsville is still the central research center. Mr. Latta discussed the use of aerosols and other pressurized applications in stored product insect control.

After discussion of the numerous problems, the conference decided on the appointment of a small committee by Mr. Fakler to develop (1) problems of the most urgent nature, (2) cooperation from industry, that is specific research facilities of industry. Those who attended in addition to representatives of USDA included M. H. Brightman, Dairy Industry Committee; William F. Brooks, National Grain Trade Council; Lloyd Case, Northwest Country Elevator Assn.; Martin D. Coopersmith, National Assn. of Popcorn Manufacturers; J. M. Creed, American Bakers Assn.; H. W. Hamilton, Chemical Specialties Manufacturers Assn.; Roy Hendrickson, National Federation of Grain Cooperatives; C. H. Hinnant, Jr., Universal Leaf Tobacco Co.; L. S. Hitchner, National Agricultural Chemicals Assn.; Floyd J. Hosking, Corn Industries Research Foundation; Harry Hunter, American Corn Millers' Federation; H. Walter Kuhl, American Spice Trade Assn.; James E. Mack, National Confectioners Assn.; A. F. Ottinger, Bemis Bros. Bag Co.; Frank Pocta, Paper Shipping Sack, Mfr. Assn.; William Quinlan, Associated Retail Bakers; W. M. Reid, Rice Millers' Assn.; Howard Smith, National Canners' Assn.; James Tawnet, Grain & Feed Dealers National Assn.; George B. Wagner, Pillsbury Mills, Inc.; Ernest H. Winter, American Spice Trade Assn.; J. P. Vinzant, American Tobacco Co.

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Hercules Names Langmeir

Arthur Langmeir recently was named assistant general manager of the naval stores department of Hercules Powder Co., Wilmington, Del. He succeeds Paul Mayfield who last month was named general manager of the department. Mr. Langmeir joined Hercules Powder Co. in 1918, when he was graduated from the University of Missouri. After six years of chemical and engineering laboratory work at plants in Kenville, N. J. and Brunswick, Ga., he moved to Wilmington as assistant to the technical director of the company.

Hercules operations were organized departmentally in 1928, at which time Mr. Langmeir was named assistant director of sales of the naval stores department. He became director of sales in 1931 and director of operations in 1939.

A. H. Reu, manager of Georgia operations of the naval stores department, replaces Mr. Langmier as director of operations for the department in Wilmington. A graduate of the University of Minnesota, Mr. Reu joined Hercules in 1920. He was named manager of Georgia operations in 1944.

George E. Bosserdet, general superintendent of the naval stores plant at Klamath Falls, Oreg., succeeds Mr. Reu as manager of Georgia operations. Before going to Klamath Falls in 1950, Mr. Bosserdet was plant superintendent at Brunswick for 11 years.

"Gottum aerosol makum smoke?
Me want writum letter!"

DU PONT AEROSOL NEWS

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Warwick Chemical Manager

Donald J. Eccleston, formerly manager of the textile chemical division, was recently named general manager of Warwick Chemical Co., a division of Sun Chemical Corp., Long Island City, N. Y.

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New Insecticide-Wax

Announcement of a new floor wax product containing the insecticide lindane was made recently by Freewax Corp., Tallahassee, Fla. The product, which is a water emulsion type wax, has been pre-tested in the south, and will be distributed on a national basis this spring. It retails for 69 cents a pint. In addition to its application to floors, the wax is being suggested by the manufacturer for use in areas subject to insect infestation, such as cracks, crevices, baseboards, pantry shelves, around sinks, pipe openings, window and door sills, etc. The wax may be applied with a brush or cloth.

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N.S.S.A. Meets March 23-26

THE 29th annual convention and trade show of the National Sanitary Supply Association, opening at the Conrad Hilton Hotel (formerly the Stevens), Chicago, Sunday, March 23 and running through Wednesday, March 26, will be marked by a sell-out of exhibit space to some 130 manufacturers and distributors of sanitary chemicals and equipment.

According to Leo J. Kelly, executive vice-president of the N.S.S.A. and manager of the association, a record attendance is expected for the meeting, which is returning to the Chicago hotel where it was held two years ago. Last year the convention was held in Cleveland.

In addition to an exhibit of all types of sanitation and cleaning aids including soaps, detergents, insecticides, disinfectants, floor waxes and polishes; a wide range of equipment and devices for applying and dispensing cleaners, as well as brushes, brooms, mops, chamois, etc., a varied discussion program dealing with association business and industry problems has been arranged. Officers and directors will be elected at business sessions, which will occupy two afternoons of the four-day meeting.

Searcy Ridge, head of Gateway Chemicals Co., Kansas City, and president of the National Sanitary Supply Association in a recent letter to *Soap & Sanitary Chemicals* magazine said that "officers and directors of the N.S.S.A. are urging every member to be present for the convention because of its interesting, educational and entertaining programs. He also pointed out that all exhibit space in the large Exhibit Hall of the Conrad Hilton Hotel will be occupied by leading manufacturers of the sanitary supply industry. He said that sanitary supply dealers and distributors attending the convention will be able to evaluate better the lines they are now handling, take on new ones that have more sales appeal or give customers greater dollar value, and at the same time, have a chance to talk with other distributors and learn their experiences with various lines. Those attending the 29th annual meeting of the N.S.S.A. may meet and become better acquainted with the heads of the firms from which they are now buying, Mr. Ridge said. He also emphasized the opportunities provided by the meeting for social contacts between distributors and manufacturers.

The exhibition committee for the convention and trade show is composed of Mal Flanagan of Federal Varnish Division, Enterprise Paint Co., Chicago; R. T. Stelmore, Lincoln Schleuter Floor Machinery Co., Chicago; George H. Bruesh, Frank Miller & Sons, Inc., Chicago; J. Schwartz, United Sponge Co., Chicago, and J. C. Alden of Paper Container Manufacturing Co., Chicago. This group was responsible for the assignment of booths, which was based on a drawing of cards carrying names of exhibitors.

Besides displays of new and standard materials and equipment, which opens Sunday morning, March 23, and remains open until 9:00 p.m. that same day, there will be group luncheons followed by discussion sessions the afternoons of Mar. 24 and 25. Exhibits will be open during the mornings of those days and following the business meetings. Topics covered at the discussion sessions, in addition to reports by the various N.S.S.A. officers on their activities during the preceding year, will include merchandising, advertising and recruiting, training and compensating of salesmen. Panels composed of association members are slated to discuss such topics as "How to Advertise Effectively"; "How Much Should be Budgeted for Advertising Purposes?"; "What is the Best Method of Compensating the Sales Force?"; "Salary vs. Commission"; "Drawing Account, Bonus, Commission, etc."

Other problems facing the industry which will be explored through group discussion or individual addresses followed by questions and answers will be government regulations on prices and raw materials, particularly the availability of raw materials going into sanitary supply equipment and cleaning and sanitizing products.

As in past years, the first day of the meeting is an open one, and nonmembers of the N.S.S.A. are permitted to visit the exhibit floor. After that only members are permitted.

In Boyle-Midway Posts

George Gerakitis has been appointed sales manager of the mid-Atlantic region and Perry Gibbs named southwestern regional sales manager of Boyle-Midway, Inc., New York, it was announced recently.

Westvaco Advances Wyatt

W. Newell Wyatt, formerly divisional sales manager of the alkali division of Westvaco Chemical Division, Food Machinery and Chemical Corp., New York, was recently appointed district sales manager with headquarters in Chicago.

Perfumers Elect Officers

The annual business meeting of the American Society of Perfumers was held at the Advertising Club, New York, Jan. 16. Officers elected for 1952 include: chairman of the board, Fred W. Fielding of Synfleur Scientific Laboratories, Monticello, N. Y.; president, Albert Dillinger, van Amerigen-Haebler, Inc., New York; vice-chairman, Jacques Masson, Ph. Chaleyer, Inc., New York; secretary, William H. Barlow, Orbis Products Corp., New York; treasurer, R. B. Houk, Dodge & Olcott, Inc., New York. Elected to the board for three years were: Roy J. Huttleston of Naugatuck Aromatics division of United States Rubber Co., New York; and Bernard Polak of Polak's Frutal Works, Middletown, N. Y.

New members elected at the meeting include: Miss Danute Pajaujis and M. J. Hickey of E. I. du Pont de Nemours & Co., Wilmington, Del.; Edgar Youngberg of Nerda Essential Oil & Chemical Co., New York; Samuel Klein of Samuel Klein, New York; Jeremiah J. Plocek, Albert Verley & Co., Chicago, and Walter M. Weglyn, Polak & Schwarz, Inc., New York.

Mrs. Miriam Gibson French, executive director of the Fragrance Foundation, will be the guest speaker at the regular monthly dinner meeting, Feb. 20, at the Advertising Club. The meeting will be an open one.

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Marshall to CSC

Clyde T. Marshall, formerly vice-president and marketing manager of Monowatt, Inc., an affiliate of Gen-

CLYDE T. MARSHALL

eral Electric Co., in Providence, R. I., was recently appointed general manager of the newly reorganized agricultural chemicals division of Commercial Solvents Corp., New York. He is making his headquarters at the company's main offices at 17 E. 42nd St., New York.

In announcing the appointment, H. J. Henry, vice-president in charge of product divisions, said that the CSC reorganization plans for the division headed by Mr. Marshall call for concentrating exclusively on marketing the firm's insecticides and nitrogen products. Plans for a new division devoted entirely to animal nutrition products will be announced later.

Mr. Marshall attended Cornell College, Mount Vernon, Ia., joined General Electric Co. in 1928, and has been associated with GE and its affiliates until his appointment to Commercial Solvents. He served with the Navy Bureau of Aeronautics during World War II, leaving the Navy as a lieutenant commander after three years of service. In his new post he is in charge of marketing, among others, the company's "Dilan" and benzene hexachloride insecticides.

V. P. Adams, Jr., oldest son of Vincent P. Adams, president of V. P. Adams, Inc., Jamaica, N. Y., was recently made vice-president in charge of sales. He was graduated from St. Francis Xavier Military Academy in New York and later attended Holy Cross College. He has been with the company working in all departments since 1945.

New Penick Pesticide

S. B. Penick and Co., New York, recently announced the development of "Sulfoxide-Pyrexcel", a new synergized pyrethrum concentrate. The product is a pyrethrum extract synergized with n-octyl sulfoxide or isosafrole.

"Sulfoxide-Pyrexcel" is said to possess the following advantages: Better knockdown and kill, milder odor, light color and lower cost. It is described as being of the same low order of toxicity as pyrethrum extract and is claimed to be effective in sprays for the control of flies, roaches and other insects. A technical bulletin is available upon request from S. B. Penick & Co., 50 Church Street, New York 7.

Carleton F. Bean Dies

Carleton F. Bean, 50, Pittsburgh, Pa., regional manager of Stanley Home Products Co., Eastham, Mass., died recently in John Hopkins Hospital, Baltimore. Mr. Bean also managed the north central region of the company.

MGK Names Bogaard

Appointment of Thomas C. Bogaard as its representative in the south central states was announced recently by McLaughlin Gormley King Co., Minneapolis producers of pyrethrum and allethrin concentrates. He is making his headquarters in Kansas City, Mo. Prior to joining MGK, Mr. Bogaard was associated with the phosphate division of Monsanto Chemical Co., St. Louis.

Edwards Reilly President

Carleton B. Edwards was elected recently as president of Reilly Tar and Chemical Corp. and Republic

CARLTON B. EDWARDS

Creosoting Co., Indianapolis, succeeding Peter C. Reilly, who died on January 4. Other officers of the companies are P. C. Reilly Jr., vice-president and treasurer; T. E. Reilly, vice-president and production manager, and R. J. Wechsler, secretary.

Mr. Edwards is a graduate of Earlham College and a director of Earlham Foundation. He has been associated with the Reilly interests for thirty-one years. Mr. Edwards began as a research chemist and advanced to director of research, production manager, and for the last ten years has been general manager of the companies.

Donald E. Cluck, who was recently named manager of the northeastern sales division of Simoniz Co., Chicago, with headquarters in New York. He succeeds Fred J. Wall, who left the company after 29 years.

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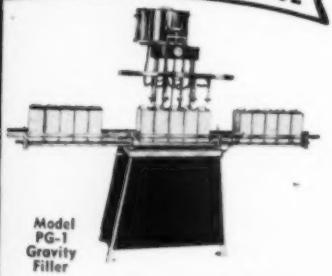

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Twelfth Eastern Regional P.C.O. Meeting

THE 12th Annual Eastern Regional PCO Conference was held at University of Massachusetts, Amherst, from January 31 through February 2. Registration was 96, from eight states and Canada, representing 61 pest control firms. A comprehensive session on "What's New in Pest Control" under direction of J. Edwin Sameth, embraced not only the new in chemistry, but in other industry developments.

There was technical discussion of Dilan and Dieldrin insecticides and brown-banded roaches; also of the N.P.C.A. Technical Department and its releases, the impact of the "ARP" in termite control, present and long-range problems of public relations and publicity. Industry discussion leaders were K. W. Tompkins, J. J. Wineburgh, J. J. Hess. Chemical topics were presented by Dr. Roger Roth of Commercial Solvents Corp., New York, and Charles Daniels, Shell Chemical Co., New York.

Rodent control problems were in charge of Howard A. Merrill of the Fish and Wildlife Service. He was assisted by Prof. A. A. Robertson and a panel of representatives of federal and state food and drug agencies and state and local health officials. Carl B. Henry, Fish and Wildlife Service, discussed rat control on dumps. Color rat films of the U.S. Public Health Service were shown.

Laboratory work dealt with "Immature Stages of Insects," with class identification of larvae. It was under the direction of Dean C. P. Alexander and staff consisting of Drs. Marion E. Smith, Frank R. Shaw, W. B. Becker, John F. Hanson and others.

Prof. Harvey L. Sweetman discussed "Control Methods as Related to Habits of Anthropod Pests." He also showed and explained a series of practical reference tables.

An exhibit of mounts and methods (for insect preservation) was shown and described by Dr. Dean L. Gamble, president and owner of Ward's Natural Science Establishment, Rochester, N. Y.

Business topics were taken up at the morning session, Feb. 2. H. Sidney Vaughan, Mass. County Agent Leader, gave an analysis of the PCO as seen by the public, and had specific suggestions for individual and firm development. This was followed by a discourse on legal principles and quirks by Prof. Harold W. Smart, School of Business Administration.

Charles W. Houghton was toastmaster at the annual banquet at Lord Jeffery Inn. Principal speaker was Dean Philip L. Gamble of the School of Business Administration. Conference "freshmen" were introduced, as were the 10-, 11-, and 12-year men. Also formally presented were the official pest control delegates to UNESCO, Jacques Hess and Ed Sameth. President Ralph A. Van Meter duly invested J. Harrie Burdge of Raymond, Maine, with the office of Dean of Applied Pestology, in recognition of more than half a century as an active owner-operator.

Platt & Smillie Chemicals, Inc. of St. Louis recently announced the introduction of the First "Economizer," a new faucet attachment that automatically measures, mixes and dispenses "First" in the correct dilution at the touch of a button. Can be preset to dispense any amount of detergent depending upon the mixture required for cleaning. The Economizer fits any faucet and remains in place without interfering with the normal use of the water supply. First is dispensed only when the button valve is closed and the valve opens automatically when the water faucet is turned off.

Columbia Can Moves

Columbia Can Co. recently moved from 315 Wyckoff Ave., Brooklyn, to new and larger quarters at 59-27 54th St., Maspeth 78, N. Y.

New Soap Dispenser

Moore Brothers Co., New York, recently announced the development of a new tank type liquid soap dispenser: "No. 500 Tanc-typ" dispenser, which can be installed without pipe, fittings or plumbers. The 40 oz. tank holds enough soap to serve 30 people a month and any number of dispensers can be set up in a wash room depending upon requirements. A folder and further information are available by writing the company at 100 Warren St., New York 7, N. Y.

Prentiss Names Abbot

Appointment of A. L. Abbot Co. of San Francisco and Los Angeles to represent Prentiss Drug & Chemical Co., New York, on the West Coast was announced recently.

McLaughlin Zonite Head

Harris M. McLaughlin was recently elected president of Zonite Products Corp., New York. Mr. McLaughlin is a former vice president of the California Bank of Los Angeles and former president of Chicopee Mills, a Johnson & Johnson subsidiary. He was also associated with San Antonio Drug Co.

New Signal Leather Cleaner

A new leather cleaner and conditioner, called "Nuhide Leather Conditioner," was announced recently by Signal Chemical Manufacturing Co., Cleveland. It is a cream emulsion designed to clean and restore original beauty and color, soften hard and cracked leather, and to preserve and condition leather articles by restoring natural oils. The new leather conditioner comes packed in six ounce, pint, quart and gallon containers.

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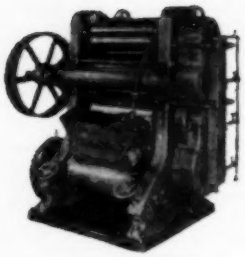

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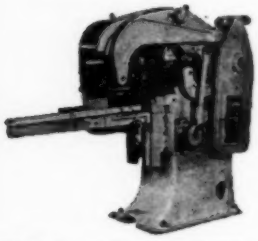

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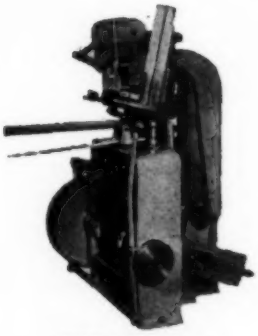

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Aerosol Insecticides

(*From Page* 153)

ences in the 15-minute knockdown and mortality at the two and four-gram dosage levels. This would indicate that dosage is not of great consequence in obtaining knockdown and kill against house flies when using a highly-effective formula but must definitely be considered when using a less effective formulation. Reasoning from these findings, it can be assumed that minor variations in test dosages will not greatly influence results with certain formulations. The first Co-operative test (Peterson, 1948) sponsored by the CSMA Aerosol Division Scientific Committee supports this conclusion.

(*To be continued*)

Disinfectant Tests

(*From Page* 149)

cially to testing quaternary ammonium compounds, but appears to be applicable to other types of germicides, although to a lesser degree.

2) By most of the workers, the "semi-micro" method was stated as being the preferred test, as it seemed to be just as easy to apply as the A.O.A.C. test, with only relatively slight changes in the detailed technique. In addition, it was felt that it gave assurance of more accurate data. In connection with the Stuart "ring" carriers, it should be borne in mind that this test has the draw-back of being suitable for *M. aureus* only as *S. typhosa* will not tolerate drying.

3) From an over-all examination of the test data as to the comparative effects of the three different antidotes ("Tamol", "Bacto-oxgall", or "Letheen") there seems to be little or no preference as far as one being superior to the other, from the standpoint of producing more uniform or more stringent data. From the ease of preparation and manipulation "Tamol" seemed to have some merit; on the other hand "Bacto-oxgall" is favored as a neutralizer because of its physiological character as opposed to the non-physiological character of "Tamol" and similar preparations. In general it would seem that it really becomes a matter of choice for the operator to use the one he likes best or has become most accustomed to using. These conclusions apply both to the *S. typhosa* and the *M. aureus* data. In general it would appear that there still remains room for improvement in the use of all three of these suggested antidotes and that additional experimental work is necessary before a truly satisfactory and reliable answer can be given to the problem being investigated here.

4) The use of the semi-micro method is also suitable for testing cresylic type disinfectants and others, although no antidotes for these are recommended at this time as no suitable ones are known. It is quite possible that if and when a substance is found which will serve as an antidote for phenolic type materials, we may find our present accepted "phenol-coefficient" data in need of re-examination.

5) Taken as a whole, these data seem to show no material difference in the results (or killing strengths) of the cresylic type disinfectant when using either the N.I.H. thioglycollate broth in the subculture medium, or A.O.A.C. nutrient broth.

6) Although insufficient data were obtained from which to draw final conclusions as to the effect of using a saline suspension of culture in place of the normal broth culture, the data as a whole seem to indicate that very little difference exists.

7) A study of these data shows wide maximum to minimum variations in duplicate sets, both by one individual, as well as by the different laboratories using the same material and test procedure. For example in Series 2, Part A, the data from laboratories C and D respectively show a very wide variation in the killing strength of the same cresylic disinfectant examined, yet their respective phenol control data are quite similar. Thus the difference cannot be attributed to variations in the strength or resistance of the test organism, an argument often advanced to explain such variations.

8) It was unfortunate that we did not select lower dilutions for the tests of series 1, as our findings for both the cresylic and the quaternary product show the 100% kill end-point to be lower than the highest concentration used in each case. Based on past experiences it was thought that the dilutions chosen for use would give us the best over-all results, but we apparently "missed it".

Recommendations

Should it be desired, at some future date, to reopen this project, the following pertinent experiments are suggested for such work:

1. A more detailed comparison of the relative efficiencies of "Tamol" and "Bacto-oxgall", under various conditions of pH and concentrations, as antidotes for quaternaries in germicidal testing procedures.
2. A more detailed study of the efficiency of the Klarmann-Wright Semi-micro method for determining the true germicidal potencies of quaternary ammonium salts as well as of other disinfectants.
3. A study of the phenol resistance results with reference to the bacterial count of the culture used, as well as to the ratio between culture and medication.
4. A comparison of the Mallmann use-dilution test procedure and the Stuart Carrier modification with the phenol-coefficient method, as to uniformity and reproducibility of test results. This is to include a study of the 99.99% kill vs. 100%.

Bibliography

DETAILED information relative to the various test procedures employed in this work (viz., the Klarmann-Wright Semi-micro method (1), the Stuart ring or Carrier method (2, 8) and the A.O.A.C. procedure (3); and the antidote, "Tamol" (4), "Bacto-oxgall" (5), and "Letheen" (6, 7) can be found by consulting the respective original literature, references to which follow:

1) Klarmann, E. G. and Wright, E. S. *Soap & Sanitary Chemicals* 22, No. 1, 125, 1946.
2) Stuart, L. S. *Soap & Sanitary Chemicals* 23, No. 9, 135, 1947.
3) A.O.A.C. Official Methods, 1950, 7th edition, 88-91.
4) Goetchius, G., *Soap & Sanitary Chemicals*, 25, No. 1, 131, 1949.
5) Klarmann, E. G. and Wright, E. S. *Amer. Jl. Pharm.* 120, No. 5, 146, 1948.
6) Quisno, R. et als. *Amer. Jl. Pharm.* 118, No. 9, 320, 1946.
7) Stuart, L. S. *loc. cit.*
8) Mallmann, W. L. and Hanes, M. *Jl. Bact.* 49, 526, 1945.

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Tale Ends

FROM London, we have just received some statistics the import of which we have not evaluated fully as yet. Just let us say that they leave us with a feeling of futility about life in general and shaving in particular. They tell us that if a man starts shaving at 16 and continues until he is 65, he removes an average of 60 feet of hair from his chin, spends 2,478 hours or 100 full days at the wash basin and uses up 210 shaving sticks which if placed end-to-end would reach four times as high as a double-decker bus. Quick, Hector, hand me that thar shootin' arn!

• • •

R. D. Spiers, exec. veep of Dainol, Inc., St. Petersburg, Fla., also has been elected a member of the Spanish Prisoner's sucker club along with us and an increasing number of our friends. As we mentioned in a recent issue, these letters telling all about a big wad of dough hidden away by the prisoner,—and of which you get half if you kick in quick to help him get out of jail,—are now coming from Mexico. Senor Spiers, too, wonders how many insecticiders are on this new Mexican sucker list.

• • •

For those who like to keep "hep" to the latest Washington jargon and double-talk, we hasten to advise that the newest and currently most used expression around the city of incredible nonsense is: "We'll guinea-pig it." As translated and explained by our roving Washington representative this apparently means that "we'll give it a try on a laboratory scale." So, if you go to Washington and they pull this "guinea-pig" thing on you, don't get all upset. Just some more of the same old double-talk.

• • •

For those who still follow the business wanderings of the former "boy wonder" of the soap industry, Chuck Luckman, we want to report that he is no longer a practicing architect in Los Angeles. The much-publicized architectural partnership could not stand the test of time and busted up. For the past 60 days, as we hear it, Chuck has been in the canned food business with Hunt Foods out on the Coast. Maybe he can sell more canned apricots than soap. They tell us he did right well selling architecture while he was in it, a figure of 26 million being mentioned, including a lot of government stuff.

• • •

This year, Allen B. Wrisley Co. of Chicago will celebrate their ninetieth anniversary as soap manufacturers. And the anniversary will be marked by a big sales push on certain Wrisley specialties and special half-prices sales in a lot of stores. The fourth generation of Wrisleys is now actively engaged in company operations as well as Wrisley Oleson, the president, and George Wrisley, vice-president, the latter two grandsons of the founder. Congratulations, gentlemen! Ninety years is a long time.

• • •

Best advertisement using cats in illustrations during 1951 was won by an Ultra Chemical Co. Gloss Wax advertisement in newspapers entitled "Upon reflection, you'll agree. . ." The award was offered by the Empire Cat Club and was presented to Ultra at the Empire annual show at the Hotel McAlpin, N. Y. last month. Sixteen other companies were awarded ribbons for cat advertisements, but Ultra was tops with its floor wax advertisement.

• • •

In our book, among those who should be awarded medals as heroes for war efforts are certain entomologists. We have in mind those working for the USDA and Army at Orlando, Fla. on human lice control and allied projects who subject themselves to bites of lice, fleas, mosquitoes, et al, in the absence of suitable animal hosts. DDT resistance of certain Korean body lice, for example, has brought numerous new research problems to the USDA Orlando gang. To solve the problems, these entomologists unhesitatingly offer themselves as guinea pig substitutes. Remember thirty or so years ago when an entomologist always was pictured as sort of a sissy screwball with a butterfly net?

• • •

Now your pet pup need have neither bad breath nor body odors! After seven days of feeding Rover on a well-known dog food which is "fortified with chlorophyllin," he and his breath will no longer smell like a dog should smell. This new chlorophyllin is a derivative of chlorophyll, the green of grass, leaves, etc. and they say it has all kinds of magic as a deodorant. We wonder what the effect is if the aforementioned Rover inadvertently leaves his card on the living room rug.

• • •

If there could be a real tough job in this world of tears, it should be selling soap to Arabs in North Africa. Rumor has it that they never—and the word, never is used advisedly—wash themselves. True or not, an enterprising American, one Herb Southwood from Abilene, Texas, runs a radio station in Tangier which is reputed to sell plenty soap and the gospel to the Arabs. Because of the high rate of illiteracy, they tell us his radio advertising really does a job.

Examination . . .

THE Army examines all recruits to eliminate physical duds. It's a good idea with advertising too. Check up and find out if you really are covering markets which you do and can sell. Or do you get 80% waste? Of course, if it be the field of soaps, detergents, aerosols, floor products, insecticides, deodorants, disinfectants, and allied chemical specialties and sanitary supplies which you want to cover, everybody knows the magazine is

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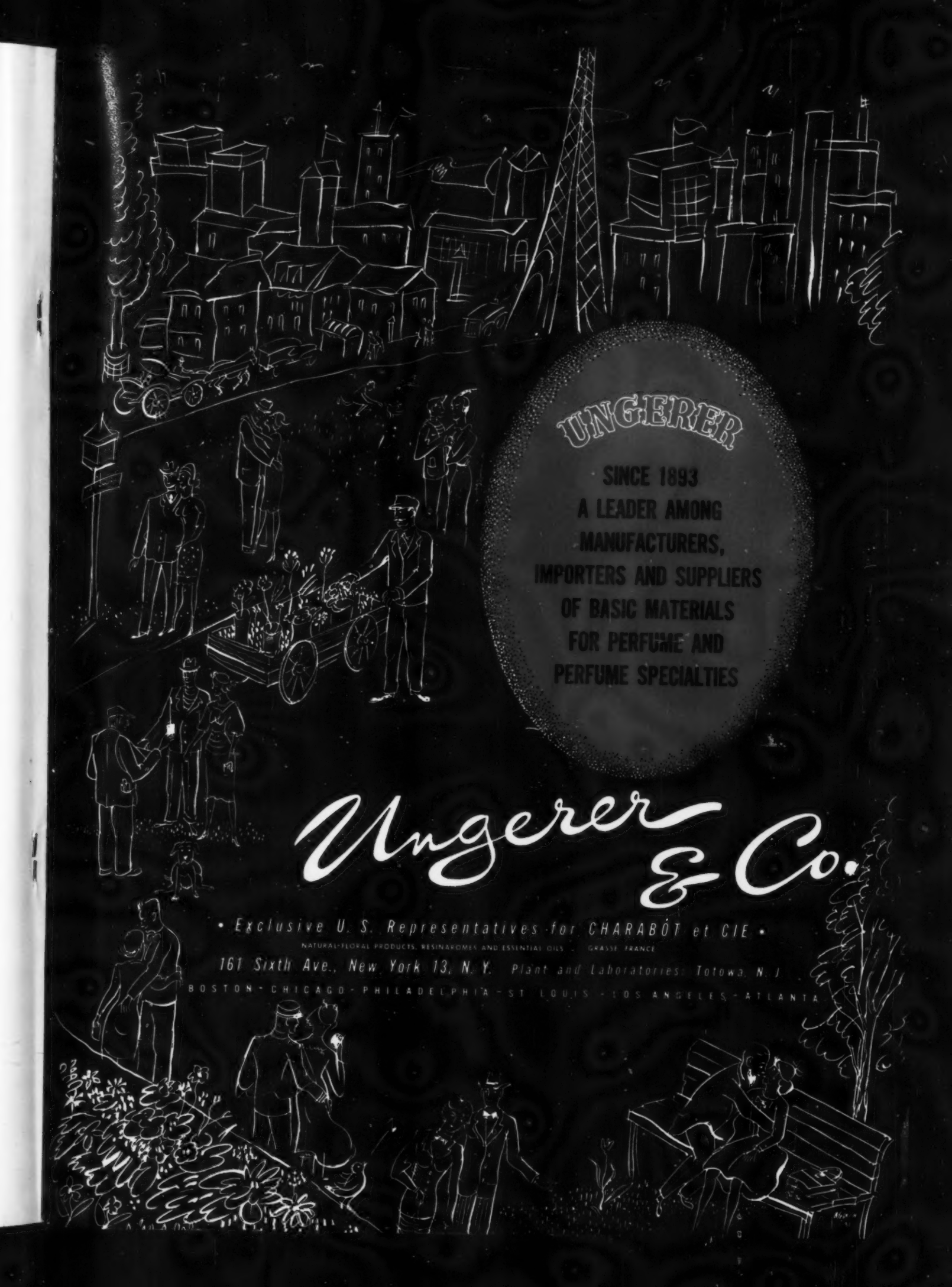
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